



Leica[®]

photography

WINTER 1952

25¢

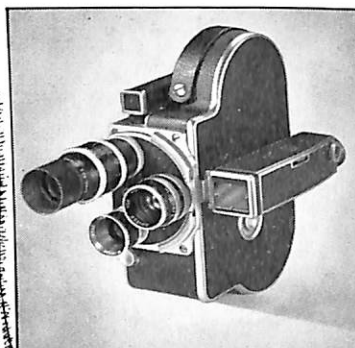
VOL. 5 NO. 4

What do I want for Christmas?

...I'm glad you asked...

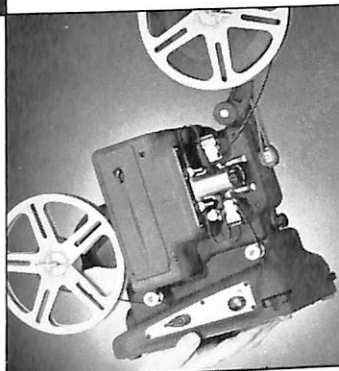


L-8 ME on Christmas morning with a beauty of a Bolex. All ranges of speeds, adjustable finder, fixed focus f/2.8 lens and wrist strap. \$97.00. A focusing mount lens and zipper case can be had for \$19.50 additional.

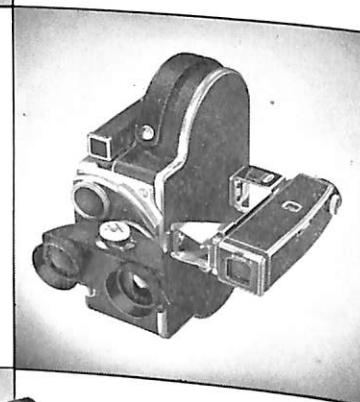


GIFT SUPREME is the Bolex DeLuxe with exclusive Octameter finder on both H-16 and H-8 models. Bolex H-16 DeLuxe with Lytar F:1.9 \$372.75. There's a Bolex H-8 Leader with Lytar F:1.9 for only \$291.50.

M-8 PROJECTOR assures a brilliant future for home movies. The only 8mm projector with so many fine features. Snap-threading and single-control settings. Big picture quality is assured with the M-8. \$176.50



STEREO MOVIES! newest achievement of the movie world. Stereo taking lens fits turret of H-16 DeLuxe, Stereo projecting lens replaces most present modern projector lenses. Offset bracket for Octameter, Stereo screen and Polaroid glasses. \$397.50 without camera.

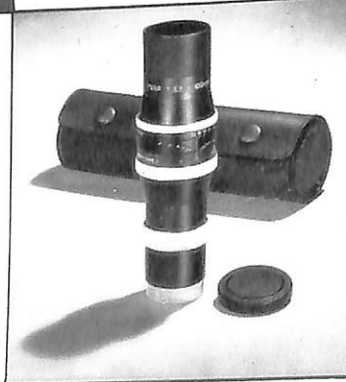


JUST IN CASE! The latest zipper job. Rich russet tan leather with shoulder strap, lush velvet lining, oodles of room for extra accessories — holds any Bolex H model camera. H-2 Zipper case . . . \$32.50.

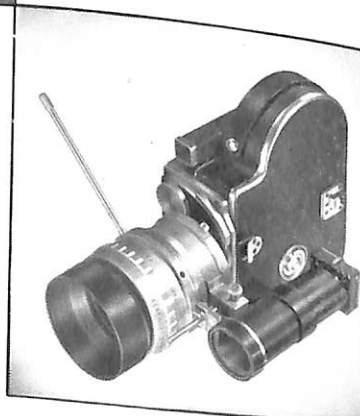


GUN STOCK! Aim that Bolex with a smile, Podner! Here's a reacher that gets its quarry every time. Carved walnut gunstock designed by Laszlo for game hunting in Africa...it's sure fire. \$126.00.

NEW OUTLOOK! Not just one viewpoint, but a whole new way of looking at things! That's what a full turret offers. Kern-Paillard lenses have Visifocus...the automatic orange dots that assure correct depth of field on every shot. 16mm lenses \$76.50 to \$145.75.



ZOOM! Pan Cinor variable focus lens with coupled viewfinder and standard "C" mount. Fits practically all 16mm cameras. Large f/2.8 aperture is ideal for color coverage of fast indoor or outdoor sports. \$447.50.



These items are distributed to Bolex Franchised Dealers by the exclusive importer: Paillard Products, Inc. 265 Madison Ave., New York 16

Nothing that

Bolex®

doesn't have!

Leica[®] photography

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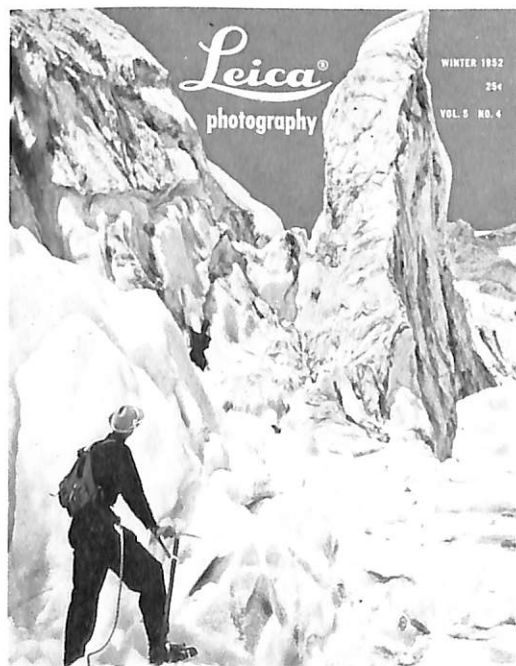
Ann Errico

IN

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TOP NOTCH—From a Kodachrome transparency taken at Mt. Rainier, Wash., by Hugh Brooks, Upper Montclair, N. J.

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The Editor will be pleased to consider original articles and photographs on Leica camera photography. All manuscripts should be accompanied by stamped, self-addressed return labels.

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by Walter A. McVey, Jr.
Independence, Kansas



Mother of the bride . . . the strains of Lohengrin . . . the reception lines . . . cutting the cake . . . refreshments . . . going away . . . scenes that will always live in our memories!





The Leica IIIIf with Summaron wide angle lens, Imarrect Finder, and flash unit, is probably the most ideally suited camera for wedding photography available today. Despite this fact, some commercial photographers do not use the Leica in their wedding assignments because of a feeling that the Leica is impractical for work of this nature. Nothing could be further from the truth. I have found the Leica to be superior to other types of cameras for wedding photography. Using only the Leica, I find that my wedding pictures attract much comment and attention. Better than that — they sell!

For many years I used both a press and reflex camera. I became sold on the Leica, however, when I made a

considering aperture, set distance by means of the depth of field scale, so that any action within the estimated field will be in focus. Needless to say, a thorough check of camera, supplies, and other equipment is in order before wedding time.

Since weddings are carefully planned, I have a conference with the bride and her mother beforehand to ascertain the number of pictures desired and to establish my prices. It is important that the bride's mother be included in any planning, since it is customary that the bride's parents pay for the pictures. Among other things, in talking with the bride, I stress the value of wedding pictures in years to come and ask her to remember me during the wedding so that I may have an opportunity to take the pictures we have planned.

.....Leica Goes to a Wedding

comparison between Leica photographs and photographs taken with these other cameras. None of the pictures taken with the larger cameras equalled Leica photographs from the standpoint of definition of object and depth of field. It is argued, of course, that if the larger camera is stopped down . . . this may be true, but who wants to stop down and how often is it feasible? The Leica not only has lenses of greater resolving power than larger cameras, but they also have shorter focal length. Leica photographs best approach third dimensional quality.

One of the reasons I recommend the 35mm. wide angle lens in wedding photography is to obtain even greater depth of field than with the 50mm. focal length. This eliminates the necessity for refocusing in many instances; an advantage not to be overlooked when considering any type of photography where the picture taking will be rapid. Although I use the rangefinder when possible, I combine this method of focusing with "zone" focusing. Under the latter system, I estimate the distance within which action might occur, and,

Once I failed to do this and when I arrived at the reception I found that the cake had not only been cut but eaten. The bride and groom had completely forgotten the pictures.

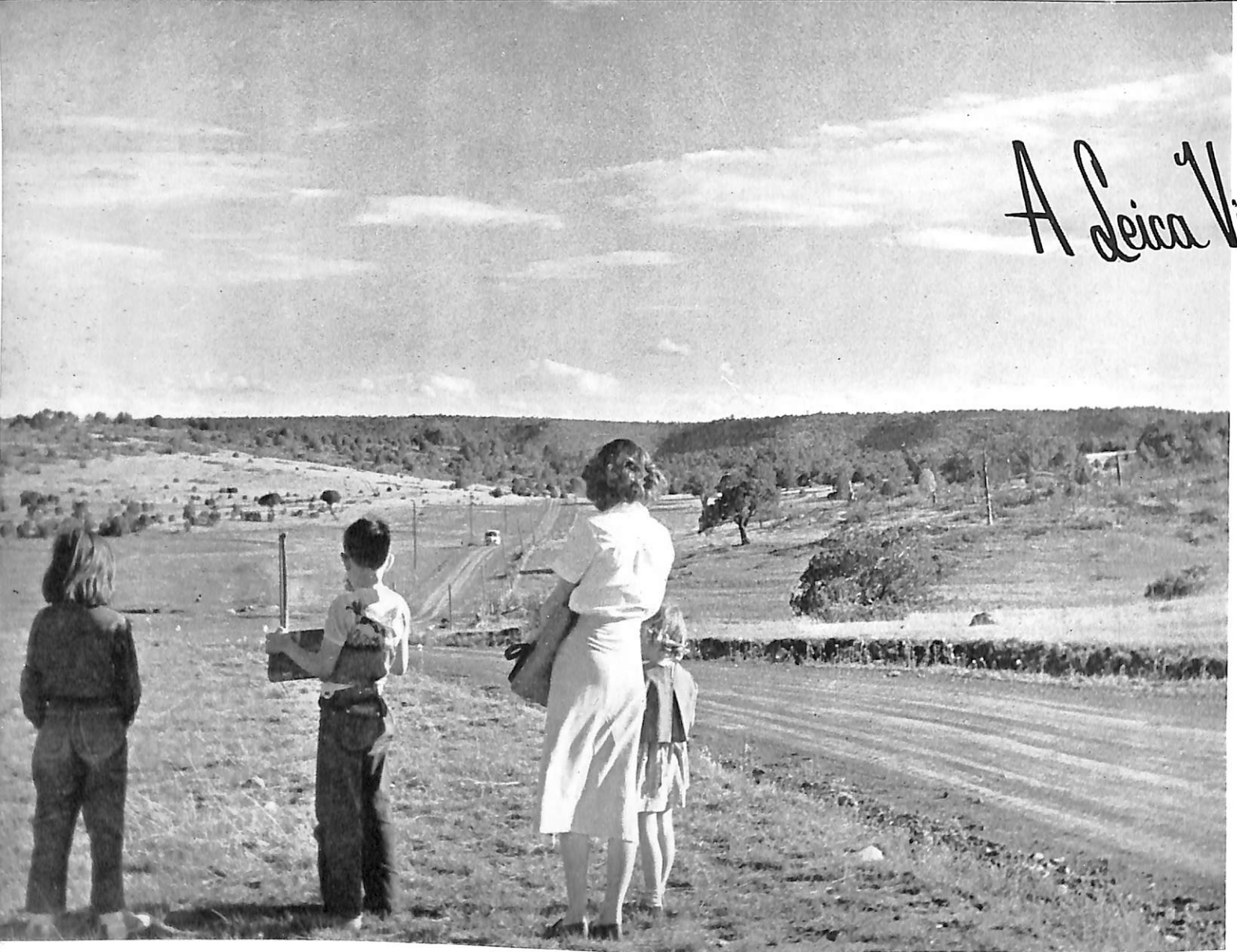
There are two principal phases to the wedding so far as the photographer is concerned—the ceremony and the reception. In all probability they will be taken under entirely different conditions. The ceremony may be taken in a large, beautiful church, whereas the reception may be held in the home of the bride's parents, or in other more confined quarters. In such a case, the pictures of the ceremony will often be better than those of the reception because at the reception the photographer may find himself shooting into mirrors or framed pictures on the walls which reflect glare from the flash bulbs. One of the difficulties encountered in wedding photography arises because of the photographer's inability to select the location where the pictures will be made and must accept conditions as they exist.

In photographing the wedding ceremony, the photographer should

Continued on page 39



A Leica Visit



The children depend on Bonnie's promptness as they wait for her by the roadside near their farm and ranch homes. They hardly noticed the photographer working with his inconspicuous Leica—unencumbered by tripod, focusing cloth, and bulky slides demanding delays between pictures.

Children like to help, and they consider it a treat to help Bonnie unload the day's mail at the post office before going on to school.

As the only woman among five bus drivers for a consolidated school district, Bonnie is subject to a great deal of "kidding" as being a "woman driver." There is no doubt in the minds of the parents of her riders, however, that Bonnie is a safe and capable driver.

**by Frank F. Taylor
Roswell, New Mexico**

Mail is a welcome lift in the somewhat lonely day of this farm woman. She meets Bonnie at her roadside mailbox to get her letters as soon as they are delivered.



with "Back Roads Bus Marm"

The word "candid," when applied to camera work, has often meant crude, awkwardly posed, unflattering pictures. Candid photography can be lacking in taste, but the Leica, handled by a sensitive photographer, can produce the frank, open and sincere pictures that American picture magazines have helped make popular.

My visit with Mrs. Bonnie McEuen, "back roads bus marm" of Lincoln County, New Mexico, is an attempt to show the casual approach possible with the Leica. Country people are naturally at ease and informal, but only with an equally casual approach can the photographer capture on film the true nature of these people. Since Bonnie works with school children, the camera must be unobtrusive or the children will lose mood of spontaneity which gives them their unique charm. Here, again, the Leica is ideally suited.

Bonnie delivers the mail, as well as school children to and from their homes. Pictures had to be made with the least possible delay in her mail and passenger schedule; the quick-acting Leica was the obvious camera to use.

To achieve change of pace and make otherwise impossible shots, the versatility of the interchangeable Leica lenses was invaluable. Three lenses, all Elmars, of 35mm., 50mm., and 90mm. focal length made this series. The 90mm. lens was ideal for portraits and for perspective control in shots along the bus route. The 50mm. lens made most of the pictures calling for a natural perspective and normal angle of view, while the 35mm. wide angle lens made possible photos otherwise unobtainable because of small rooms and fence-bordered roads where topography limited the photographer's sphere of action.

This photographic interview and bus trip with Bonnie made me appreciate more fully the adaptability and ease of handling of the world famous Leica. Candid photography is its ideal field for the graphic portrayal of the everyday lives of interesting people. ♦

With no service stations on her back roads bus run, Bonnie must be able to make minor engine repairs herself. Here a student hands her a wrench.



Bonnie is the industrious, self-sufficient type of woman who helped develop the great Southwest. In this picture she prepares her bus for the day's run while husband Jim chops a day's supply of firewood. (I chose one of the slower shutter speeds on the Leica to get the blur of action into the overhead stroke of the axe.)



Having no children, Bonnie watches over her bus charges as though they were her own. She gives a final touch with a comb to the hair of her youngest charge before sending her off to her teacher.



Driving the bus is only one of Bonnie's duties; she is also a cook for the school lunch program. An f/3.5 opening on the 35mm. Elmar wide angle gave me a good exposure at 1/20 of a second, showing just enough of the motion in Bonnie's hands to create the unposed effect that modern photography demands.



At day's end, Bonnie relaxes, in her own way, with her favorite rifle, a custom-made small bore, high velocity hunting piece. The failing daylight coming through the open doorway provided the only light for this shot—made at 1/8 of a second, f/3.5 with the 50mm. Elmar.





Expand your attic! An article by Henry Clark in *Mechanix Illustrated* shows how the home looked after the job was done.



Hey, Ma, looka me shootin' Pa! 9 year old Linda uses a 3C to record a building stage. The Leica is duck soup to her, long as Pa sets it!

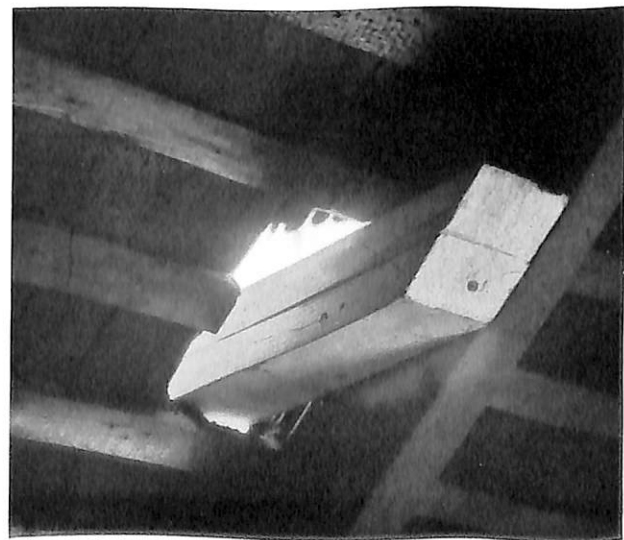


Typical dormer structure begins with erection of studs. First step is to expose wall plate.

A single 2x4 in. plate is nailed to initial studs.

Installed end rafter and gable plate. Fit end rafters with care. They form pattern for others.

Gable plate is attached at interior end to an existing rafter and beveled to match roof pitch.





This photo shows how Henry Clark slips his Leica under his belt to use both arms for scrambling up structures of all sizes and heights.

Before and after photos of a construction job or building alteration are valuable to both builder and home owner. To the builder, to illustrate the quality of his work—to the home owner to obtain loans, as a record with his deed, and, if he did the work himself, a tremendous satisfaction with his how-to-do it ability.

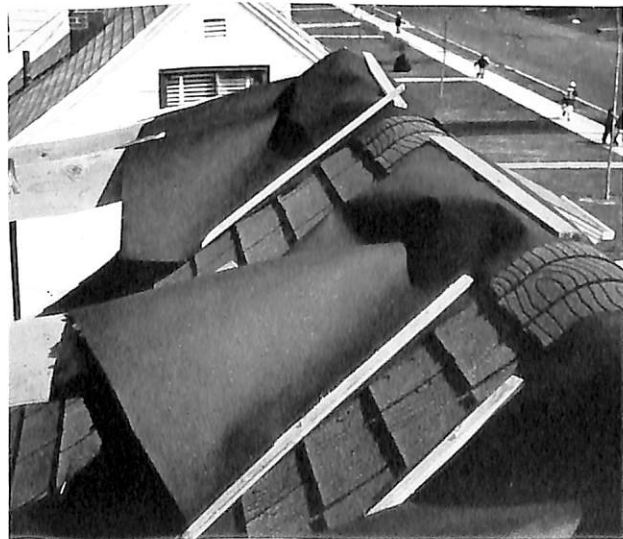
The step-by-step pictures in this article appeared in the *HANDY MAN'S HOME MANUAL* (Fawcett Publications) with drawings to illustrate how to expand your attic. All were taken with my Leica and Summar 50mm. lens. With all the crawling, climbing, and balancing necessary, only Leica equipment could be used for this type of photography.

I had to climb around on scaffolding and open wood-

work to record how the contractor built the roof dormer. I used available light only because flash cords seem unnecessary to me under such conditions. Many times I had to work with one hand, so larger equipment and extra accessories were impractical. I do recommend a wide angle lens, however, for a greater variety of interior shots.

When I do my own remodeling, I often pre-set the camera and let my children snap me at work. Having one of the family around saves you the annoyance of stopping in the middle of a job to take pictures. Every detail was recorded on Plus-X film in Leica cassettes until I bought my second Leica. I now have both black-and-white and color records. *Continued on page 43*

Prepare for rain at any time during construction by battening down tar paper over roof openings.



Framing nears completion. For large window openings use 2x6 in. or 2x8 in. stock for headers to give rigid support to dormer rafters bearing on plate above them.



LEICA RETAIL PRICE LIST

Effective November 1, 1952

| Code Word | Catalog Number | Item | Retail List Price Incl. F.E.T. | Code Word | Catalog Number | Item | Retail List Price |
|--|----------------|--|--------------------------------|--|----------------|---|-------------------|
| LEICA CAMERAS | | | | ELANG | 11,030 | Elmar 90mm. f/4 long focus lens, in light weight focusing mount, angle of view 27° | \$ 112.20 |
| OEFGO | 10,000 | Leica Model If, chrome finished housing, covered in leather grained vulcanized fabric with eyelets for neckstrap, lens changing flange ring, two special accessory shoes, focal plane shutter with speeds from 1/25 to 1/500 of a second and "bulb". Built-in synchronizer for all flash units and Strobe, with adjustable synchro-dial for all shutter speeds and synchro-contact, with film speed indicator built into winding knob for both A.S.A. and Weston ratings, including take-up spool. Without viewfinder and without lens. | \$ 73.10 | HEFAR | 11,035 | Hektor 135mm. f/4.5 long focus lens, in light weight focusing mount, angle of view 19° | 150.00 |
| OEGIO | 10,005 | Leica Model If, as described, including reflecting viewfinder for 50mm. lenses. | 83.30 | OHEBO | 11,040 | Hektor 135mm., as above, but in short mount, for use with Mirror Reflex Housing. | 132.00 |
| OEINO | 10,010 | Leica Model If, as described, with Elmar 50mm. f/3.5 lens and viewfinder. | 151.30 | ZOOAN | 11,045 | Short focusing mount to fit Hektor 135mm. HEFAR, for use with the Mirror Reflex Housing. (Available on special order only. Delivery 6 weeks. Serial number of lens must be supplied with order). | 21.00 |
| OESFO | 10,015 | Leica Model If, as described with Summarit 50mm. f/2 and viewfinder. | 256.70 | ZOOKE | 11,050 | Long focusing mount for Hektor 135mm. OHEBO for use with the built-in rangefinder of the Leica camera. (Special order only. Six weeks delivery. Serial number of the lens to be supplied with order). | 24.00 |
| OEFGO-SOONC | 10,020 | Leica Model If, as described, with Summaron 35mm. f/3.5 wide angle lens, without viewfinder. | 175.10 | OZYXO | 11,055 | Leica Mirror Reflex Housing, with wide field magnifier 5x and double cable release | 102.00 |
| FOKOS | 10,025 | Attachable rangefinder for Leica If, chromium plated. | 21.00 | OTPLO | 11,060 | Telyt 200mm. f/4.5 telephoto lens, in short mount, with lens and dust cap, angle of view 12° | 156.00 |
| LOOSE | 10,030 | Leica Model III, chrome finished housing, covered in leather grained vulcanized fabric with eyelets for neckstrap, lens changing flange ring, built-in viewfinder and coupled rangefinder, with 1.5x telescope system, twin eyepieces for rangefinder and viewfinder, focal plane shutter with speeds from 1/25 to 1/500 of a second and "bulb". Synchronized for all flash units and Strobe, with adjustable synchro-dial for all shutter speeds and synchro-contact, with film speed indicator built into the winding knob for both A.S.A. and Weston ratings, with take-up spool, without lens. | 139.40 | TOOLP | 11,065 | Telyt 200mm. f/4.5 OTPLO, complete, with Mirror Reflex Housing, focusing magnifier 5x, and double cable release. | 258.00 |
| LOOEL | 10,035 | Leica Model III, as described with Elmar 50mm. f/3.5 lens. | 207.40 | TLOOB | 11,067 | Telyt 400 mm. f/5, telephoto lens, complete with Mirror Reflex Housing, magnifier 5x, and double cable release. | 552.00 |
| LOOSU | 10,040 | Leica Model III, as described, with Summarit 50mm. f/2 lens. | 312.80 | MOOSP | 11,070 | Extension tube 15mm. for close-up photography at distances less than 10 feet with Telyt 200mm. | 2.10 |
| LOOSE-SOONC | 10,045 | Leica Model III, as described, with Summaron 35mm. f/3.5 wide angle lens. | 241.40 | TZOON | 11,075 | Intermediate collar for Telyt 200mm., when mounting the lens directly to the Leica camera without the mirror reflex housing, including special viewfinder shoe | 16.50 |
| LOOHW | 10,050 | Leica Model III, chrome finished housing, covered in leather grained vulcanized fabric with eyelets for neckstrap, lens changing flange ring, built-in viewfinder and coupled rangefinder, with 1.5x telescope system, twin eyepieces for range and viewfinder, focal plane shutter with speeds from 1 second to 1/1000 of a second, "bulb" and "time". Synchronized for all flash units and Strobe, with adjustable synchro-dial for all shutter speeds and synchro-contact, with film speed indicator built into winding knob for both A.S.A. and Weston ratings, including take-up spool, without lens. | 210.80 | VIEWFINDERS | | | |
| LOOPN | 10,055 | Leica Model III, as described, with Elmar 50mm. f/3.5 lens. | 278.80 | VIOOH | 12,000 | Imarect viewfinder for all Leica lenses from 35mm. to 135mm. with parallax correction, built-in prism, for image erection. | \$ 42.00 |
| LOOKX | 10,060 | Leica Model III, as described, with Summarit 50mm. f/2 lens. | 384.20 | TUVOO | 12,005 | Adapter for Imarect Finder, comprising negative lens which allows the VIOOH Imarect Finder to be used with the Hektor 28mm. lens. | 10.50 |
| LOOIT | 10,065 | Leica Model III, as described, with Summarit 50mm. f/1.5 lens. | 435.20 | SBLOO | 12,010 | Optical reflecting viewfinder for 35mm. lenses. | 21.00 |
| LOOHW-SOONC | 10,070 | Leica III, as described, with Summaron 35mm. f/3.5 lens. | 312.80 | SBOOI | 12,015 | Optical reflecting viewfinder for 50mm. lenses. | 10.20 |
| INTERCHANGEABLE LEICA LENSES (coated) | | | | SGOOD* | 12,020 | Optical reflecting viewfinder for 85mm. lenses. | 15.00 |
| HOOPY* | 11,000 | Hektor 28mm. f/6.3, extreme wide angle lens, in non-collapsible focusing mount, angle of view 76° | \$102.00 | SGVOO* | 12,025 | Optical reflecting viewfinder for 90mm. lenses. | 15.00 |
| SOONC | 11,005 | Summaron 35mm. f/3.5, wide angle lens, in non-collapsible focusing mount, angle of view 64° | 102.00 | SHOOC* | 12,030 | Optical reflecting viewfinder for 135mm. lenses. | 15.00 |
| ELMAR | 11,010 | Elmar 50 mm. f/3.5, standard lens, in collapsible focusing mount, angle of view 47° | 68.00 | SFTOO | 12,035 | Sports finder for Telyt 200mm. | 15.90 |
| SOORE | 11,015 | Summarit 50mm. f/2 universal high speed lens, in collapsible focusing mount, angle of view 47° | 173.40 | ROSOL | 12,040 | Frame finder with interchangeable frame for 50mm., 85mm., 90mm., and 135mm. lenses. | 11.10 |
| SOOIA | 11,020 | Summarit 50mm. f/1.5 high speed lens, in non-collapsible focusing mount, angle of view 47° | 224.40 | * Not yet available. | | | |
| SOOCX | 11,025 | Summarex 85mm. f/1.5 high speed lens, in focusing mount, including sunshade and lens and dust cap, angle of view 28° | 442.00 | LEICA SUNSHADES | | | |
| * Delivery 3-4 months. | | | | SOOHN | 12,500 | Hektor 28mm. | \$ 2.40 |
| | | | | FOOFH | 12,505 | Summaron and Elmar 35mm. | 2.40 |
| | | | | FISON | 12,510 | Elmar 50mm. | 2.10 |
| | | | | SOOPD | 12,515 | Summarit 50mm., collapsible | 9.90 |
| | | | | XOONS | 12,520 | Summarit 50mm. | 3.90 |
| | | | | ORQPO | 12,525 | Summarex 85mm. | 3.90 |
| | | | | FIKUS | 12,530 | Elmar 50mm. and 90mm., Hektor 135mm., extensible | 5.70 |
| | | | | TNGOO | 12,535 | Telyt 200mm. | 4.50 |
| | | | | FILTERS | | | |
| | | | | a) Slip-on filters with fixing screw for Hektor 28mm., Summaron and Elmar 35mm., Elmar 50mm. and 90mm., and Hektor 135mm.: | | | |
| | | | | FIHEL | 13,000 | Yellow No. 0 | \$ 5.55 |
| | | | | FIGRO | 13,005 | Yellow No. 1 | 5.55 |
| | | | | FIGAM | 13,010 | Yellow No. 2 | 5.55 |
| | | | | FIPOS | 13,015 | Green | 6.30 |

| Code Word | Catalog Number | Item | Retail List Price |
|-----------|----------------|---|-------------------|
| FSEOO | 13,025 | Orange..... | \$ 5.94 |
| FIRAD | 13,030 | Graduated Yellow..... | 7.20 |
| FOOBD | 13,035 | Graduated Green..... | 7.20 |
| FEDOO* | 13,040 | Red (light)..... | 6.30 |
| FIKYB* | 13,045 | Red (medium)..... | 6.30 |
| FEOOG* | 13,050 | Red (dark)..... | 6.30 |
| FIOLA | 13,055 | U.V. Protection..... | 5.55 |
| FIKFT | 13,060 | Type "A" laminated filter for Kodachrome Type "A" film..... | 7.44 |
| FIKLO | 13,065 | Photoflood filter for Kodachrome Daylight film..... | 7.44 |
| FICHR | 13,070 | Flash Filter (for clear bulbs and Type "A" film)..... | 7.44 |
| FISKF | 13,075 | Skylight filter for Kodachrome Daylight film..... | 7.44 |

b) Screw-in filters for Summitar 50mm.:

| | | | |
|--------|--------|---|---------|
| GBOOM | 13,080 | Yellow No. 0..... | \$ 5.10 |
| GBWOO | 13,085 | Yellow No. 1..... | 5.10 |
| GCOOL | 13,090 | Yellow No. 2..... | 5.10 |
| GCOOL | 13,095 | Green..... | 5.55 |
| GDOOK | 13,100 | Orange..... | 5.55 |
| GHOOF | 13,105 | Graduated Yellow..... | 7.50 |
| GILOO | 13,110 | Graduated Green..... | 7.50 |
| GECOO* | 13,115 | Red (light)..... | 5.55 |
| GFEEO* | 13,120 | Red (medium)..... | 5.55 |
| GFOOH* | 13,125 | Red (dark)..... | 5.55 |
| GHIOO | 13,130 | U.V. Protection..... | 5.10 |
| FIDAY | 13,135 | Type "A" laminated filter for Kodachrome Type "A" film..... | 6.66 |
| FIFLO | 13,140 | Photoflood filter for Kodachrome Daylight film..... | 6.66 |
| GCHEO | 13,145 | Flash filter (for clear bulbs and Type "A" film)..... | 6.66 |
| GCSKY | 13,150 | Skylight filter for Kodachrome, daylight film..... | 6.66 |

c) Bayonet fitting filters for Summarit 50mm.:

| | | | |
|--------|--------|---|---------|
| XOOPT | 13,155 | Yellow No. 0..... | \$ 7.08 |
| XOOQG | 13,160 | Yellow No. 1..... | 7.08 |
| XOORU | 13,165 | Yellow No. 2..... | 7.08 |
| XOOSH | 13,170 | Green..... | 7.89 |
| XOOZY | 13,175 | Orange..... | 7.89 |
| XPGOO | 13,180 | Graduated Yellow..... | 7.89 |
| XPOOF | 13,185 | Graduated green..... | 7.89 |
| XOOU* | 13,190 | Red (light)..... | 7.89 |
| XOOVW* | 13,195 | Red (medium)..... | 7.89 |
| XOOWK* | 13,200 | Red (dark)..... | 7.89 |
| XOOL | 13,205 | U.V. Protection..... | 7.08 |
| XOAY | 13,215 | Type "A" laminated filter for Kodachrome Type "A" film..... | 9.00 |
| XOSKY | 13,220 | Skylight filter for Kodachrome Daylight film..... | 8.10 |
| XOFLA | 13,225 | Flash filter, for clear bulbs and type "A" film..... | 9.00 |

d) Screw-in filters for Summarex 85mm.:

| | | | |
|--------|--------|--|----------|
| UPOOZ | 13,230 | Yellow No. 0..... | \$ 10.65 |
| UQMOO | 13,235 | Yellow No. 1..... | 10.65 |
| UQOY | 13,240 | Yellow No. 2..... | 10.65 |
| UROOX | 13,245 | Green..... | 12.00 |
| USOOW | 13,250 | Orange..... | 12.00 |
| USQOO* | 13,255 | Red (light)..... | 12.00 |
| UTOOV* | 13,260 | Red (medium)..... | 12.00 |
| UTSOO* | 13,265 | Red (dark)..... | 12.00 |
| UVOOF | 13,270 | U.V. Protection..... | 10.65 |
| USOAY | 13,275 | Type "A" laminated filter, for Kodachrome type "A" film..... | 15.00 |
| USSKY | 13,280 | Skylight filter, for Kodachrome daylight film..... | 12.00 |
| USFLA | 13,285 | Flash filter, for clear bulbs and type "A" film..... | 15.00 |

e) Screw-in filters for Telyt 200mm.:

| | | | |
|--------|--------|----------------------|---------|
| POOAH | 13,290 | Yellow No. 0..... | \$ 7.08 |
| POOBV | 13,295 | Yellow No. 1..... | 7.08 |
| POOCI | 13,300 | Yellow No. 2..... | 7.08 |
| POODW | 13,305 | Green..... | 7.89 |
| POOKZ | 13,310 | Orange..... | 7.89 |
| POOGL* | 13,315 | Red (light)..... | 7.89 |
| POOEK* | 13,320 | Red (medium)..... | 7.89 |
| POOHY* | 13,325 | Red (dark)..... | 7.89 |
| POOFX | 13,330 | U.V. Protection..... | 7.08 |
| POOAY | 13,335 | Type "A" filter..... | 10.50 |
| POSKY | 13,340 | Skylight filter..... | 9.00 |
| POFLA | 13,345 | Flash filter..... | 10.50 |

* Infra-red.

f) Polarizing filters for the reduction of glare and reflections:

| | | | |
|-------|--------|--|----------|
| POOEL | 13,350 | In slip-on mount with angles engraved for Hektor 28mm., Summaron and Elmar 35mm., Elmar 50mm. and 90mm. and Hektor 135mm..... | \$ 18.90 |
| POORE | 13,355 | In rotating screw-in mount for Summitar 50mm..... | 19.80 |
| XQIOO | 13,360 | In rotating screw-in mount for Summarit 50mm..... | 19.80 |
| FILPO | 13,390 | In slip-on mount with rotating swing-out filter, for Hektor 28mm., Summaron and Elmar 35mm., Elmar 50mm. and 90mm. and Hektor 135mm..... | 27.36 |
| FISUM | 13,395 | Ditto for Summitar 50mm..... | 29.07 |
| FINON | 13,400 | Ditto for Summarit..... | 29.07 |

g) Filter mounts engraved for using special filters (for color photography, etc.):

| | | | |
|-------|--------|--------------------------------|---------|
| FOOXB | 13,365 | For Standard diameter (a)..... | \$ 2.10 |
| FOOXC | 13,370 | For Summitar 50mm. (b)..... | 1.20 |
| FOOXD | 13,375 | For Summarit 50mm. (c)..... | 1.80 |
| FOOXE | 13,380 | For Summarex 85mm. (d)..... | 1.65 |
| FOOXF | 13,385 | For Telyt 200mm. (e)..... | 1.50 |

LEICA CAMERA ACCESSORIES

| | | | |
|------------|--------|---|---------|
| FILCA | 14,000 | Spare roll film magazine with aluminum container..... | \$ 3.45 |
| FILCA-SINE | 14,005 | Spare roll film magazine, but without aluminum container..... | 3.00 |
| DRXOO | 14,010 | Aluminum container as a spare..... | .45 |
| SPUCA | 14,015 | Magazine spool as replacement..... | .75 |
| SPULM | 14,020 | Leica camera take-up spool as replacement..... | 1.20 |

Lens caps:

| | | | |
|-------------|--------|--|---|
| ORVZO-CHROM | 14,025 | For Standard diameter, chrome plated..... | \$.75 |
| ORSTO | 14,030 | For Summitar 50mm..... | .84 |
| ORXDO | 14,035 | For Summarit 50mm..... | .84 |
| ORPNO | 14,040 | For Summarex 85mm..... | .84 |
| PNOOZ | 14,045 | For Telyt 200mm., black..... | .84 |
| ORYFO-CHROM | 14,050 | Dust cap, screw-on type for Leica lenses, chrome plated..... | .75 |
| ORTVO-CHROM | 14,055 | Lens opening cover to protect camera housing when lens is removed, chrome plated..... | .75 |
| ORAKO | 14,057 | Orange rangefinder filter, slip on, for models II, III, IIIa..... | 2.70 |
| OKARO | 14,058 | Orange rangefinder filter, slip on, for models IIc, IIIf, IIIf, IIIfc, IIIf | 2.70 |
| ORWYB | 14,060 | Correction lenses for use on rangefinder or viewfinder, to correct near and far sightedness. For Leica Camera Models IIIf, IIIfc, IIIf and IIIf only. Prices vary in accordance with prescriptions and range from: <div> <div>Plus or Minus Spheres</div> <div>Plano to 2.00 diopters.....</div> <div>2.25 to 4.00 ".....</div> <div>4.25 to 6.00 ".....</div> <div>6.25 to 8.00 ".....</div> <div>Minus Only</div> <div>8.25 to 9.00 diopters.....</div> <div>9.25 to 20.00 ".....</div> <div>Plus only</div> <div>8.25 to 9.00 diopters.....</div> <div>9.25 to 12.00 ".....</div> <div>12.25 to 16.00 ".....</div> <div>16.25 to 20.00 ".....</div> </div> | 10.00 12.00 12.00 15.00 15.00 18.00 18.00 18.00 21.00 |

ORYCE 14,065 Correction lenses for astigmatism, for use on rangefinder and viewfinder of Leica Camera Models IIIf, IIIfc, IIIf and IIIf only.

| Sphere | Cylinder | |
|-----------------------|------------------|-------|
| 0.25 to 2.00 diopters | to 2.00 diopters | 12.00 |
| 2.25 to 3.00 " | to 2.00 " | 12.00 |
| 3.25 to 4.00 " | to 2.00 " | 15.00 |
| 4.25 to 6.00 " | to 2.00 " | 15.00 |

It is essential that the prescription be sent in for the eye used by camera owner
DELIVERY: 4 to 6 weeks

| | | | |
|-------|--------|---|-------|
| FINOT | 14,070 | Leica Camera cable release, with set screw, 10 inches long..... | 1.20 |
| OPKOM | 14,075 | Leica Camera cable release, with set screw, 20 inches long..... | 1.62 |
| FIDRI | 14,080 | Leica Camera cable release, 10 feet long, with protection spiral..... | 10.50 |
| OZWTO | 14,085 | Double cable release for Mirror Reflex Housing (included in price of reflex housing)..... | 10.50 |

| Code Word | Catalog Number | Item | Retail List Price | Code Word | Catalog Number | Item | Retail List Price |
|---|----------------|---|-------------------|-------------------------------------|----------------|--|-------------------|
| TRPOO | 14,090 | Neck strap for Leica Camera..... | \$ 1.98 | CORID | 15,030 | Spare reel for same..... | \$ 2.85 |
| TROOV | 14,095 | Camera sling with safety lock for holding the camera steadier..... | 2.55 | COSTI | 15,035 | Spare hand agitator..... | .60 |
| TOOUG | 14,100 | Small table tripod, consisting of 3 folding legs and vertical pillar with tripod thread..... | 9.30 | COROL | 15,040 | Developing tank and lid only, with hand agitator, without reel or apron..... | 4.50 |
| FOOMI | 14,105 | Small ball and socket tripod head..... | 3.60 | CORPE | 15,045 | Ditto, without lid, hand agitator, reel or apron..... | 2.85 |
| TOOQE | 14,110 | Table tripod TOOUG, with ball and socket tripod head FOOMI..... | 12.90 | CORCF | 15,050 | Spare lid for developing tank..... | 1.65 |
| KGOON | 14,115 | Large ball and socket tripod head, specially rigid construction..... | 9.00 | CODRO | 15,055 | Leica developing tank, 12 oz. (310cc.) | 6.00 |
| FCKOO | 14,120 | Single film holder for Leica Camera Models; Ic, IIf, IIIf, IIIIf up to serial number 590,681..... | 1.50 | CORBA | 15,060 | Spare celluloid apron for same, moulded on one side..... | 2.70 |
| FHKOO | 14,125 | Same as above, for all previous models. | 1.50 | CORSO | 15,065 | Spare reel for same..... | 1.35 |
| | | | | CORLE | 15,070 | Developing tank lid only..... | 2.70 |
| | | | | COSTI | 15,035 | Spare hand agitator..... | .60 |
| | | | | CORET | 15,075 | Tank thermometer..... | on request |
| | | | | TEOOH | 15,080 | Leitz-Agfa RONDINAX Daylight Developing Tank, complete..... | 24.00 |
| | | | | ELDIA | 15,085 | Small printing device for film or paper strips..... | 21.00 |
| | | | | ELKIN | 15,090 | Reducing mask 18 x 24mm..... | 3.60 |
| | | | | ELDUR | 15,095 | Printing device for glass diapositives 2 x 2 inches..... | 21.00 |
| | | | | ELGLA | 15,100 | Metal pressure plate for paper prints... Large combination printer for printing Leica negatives on glass plates 2 x 2 in. and on 35mm. positive film rolls, comprising: | .75 |
| | | | | KOLOM | 15,105 | Basic housing..... | 48.00 |
| | | | | KOGLA | 15,110 | Lantern slide attachment..... | 24.00 |
| | | | | KOVIR | 15,115 | Complete equipment for 2 x 2 in. slides. | 72.00 |
| | | | | KOTOS | 15,120 | Film attachment, 24 x 36mm..... | 51.00 |
| | | | | KOPAT | 15,125 | Complete equipment for 2 x 2 in. slides and for 35mm. film rolls..... | 123.00 |
| | | | | KOLOM | 15,105 | Basic housing..... | 48.00 |
| | | | | KOTOS | 15,120 | Film attachment, 24 x 36mm..... | 51.00 |
| | | | | KOFIM | 15,140 | Complete equipment for 35mm. film rolls 24 x 36mm..... | 99.00 |
| | | | | KOOHI | 15,145 | Film attachment with interchangeable masks 24 x 36mm. and 18x24 mm..... | 57.00 |
| | | | | KOORA | 15,150 | Complete equipment for 35mm. film rolls 24 x 36mm. and 18 x 24mm. size (KOLOM plus KOOHI)..... | 105.00 |
| | | | | KOOLX | 15,155 | Ditto, including lantern slide attachment (KOLOM plus KOOHI plus KOGLA)..... | 129.00 |
| | | | | KOREF | 15,160 | Masking window 18 x 24mm. for lantern slide attachment..... | 2.85 |
| | | | | KONAF | 15,165 | Ditto, 3 x 4 cm..... | 4.20 |
| | | | | KODRE | 15,170 | Ditto, 4 x 4 cm..... | 4.80 |
| | | | | KOSUS | 15,175 | Two spools taking roll films of 30 x 40mm. and 40 x 40mm. size..... | 1.80 |
| | | | | ELGLA | 15,100 | Metal pressure plate for paper prints fitting lantern slide attachment..... | .75 |
| | | | | OSLAM | 15,180 | Spare bulb, 15 Watt..... | .60 |
| | | | | OSROT | 15,185 | Spare safelight bulb, ruby..... | 1.50 |
| | | | | UGRIN | 15,190 | 100 cover glass plates 2 x 2 in. for mounting lantern slides, ground edges..... | 1.50 |
| | | | | USMAS | 15,195 | 100 masks 2 x 2 inches with 24 x 36mm. aperture..... | .85 |
| | | | | TIEUP | 15,200 | Adhesive cloth binding tape, 1/2 inch wide, rolls of 70 feet, red..... | 1.50 |
| | | | | DAMOT | 15,205 | Bindomat for mounting transparencies between 2 x 2 inches glass plates, including 100 glass plates, 100 masks, one roll of binding tape, one "C" clamp, complete..... | 18.00 |
| | | | | | 15,210 | Bindomat Replacement spring..... | .36 |
| | | | | | 15,215 | Bindomat tape core..... | .24 |
| | | | | * Not yet available. | | | |
| | | | | VIEWERS | | | |
| | | | | NOOBU | 15,500 | Negative film viewer..... | \$ 15.00 |
| | | | | VUDFS | 15,505 | Desk Viewer, for 2 x 2" glass slides..... | 45.00 |
| | | | | VURER | 15,510 | Adapter to use Desk Viewer for "Ready-mounts"..... | 2.70 |
| | | | | VULAM | 15,515 | Replacement bulb, 25 Watt, 110 Volts..... | .35 |
| | | | | SUPPLEMENTARY CAMERA DEVICES | | | |
| | | | | APDOO | 16,000 | Attachable self-timing device, without case..... | \$ 6.66 |
| | | | | APOOM | 14,645 | Leather case for same..... | .90 |
| | | | | ASKOO | 16,010 | Attachable self-timer in case..... | 7.56 |
| | | | | SYOOM* | 16,015 | Rapid winder Leicavit, for rapid sequence shots (for models with serial numbers above 400,000)..... | 24.00 |
| | | | | METER | 16,017 | Leica-Meter, direct exposure reading scale, simply operated calculator giving readings for films of different A.S.A. and Weston ratings, and also the shutter speeds to use for various Leica lens openings (ASA and Weston system). Includes super-sensitive cell for indoor readings and when copying, and two leather cases for meter and attachment..... | 24.00 |
| | | | | METER-CELL | 16,018 | Super Sensitive Element only, for Leica Meter..... | 7.50 |
| | | | | *Not yet available. | | | |
| | | | | | | | |
| CASES | | | | | | | |
| Eveready cases: | | | | | | | |
| ESOOG | 14,500 | For Leica If with Elmar 50mm. lens and detachable rangefinder..... | \$ 12.30 | | | | |
| EQBOO | 14,505 | For Leica If with Summarit 50mm. lens and detachable rangefinder..... | 12.30 | | | | |
| For Leica, IIf, IIIf, IIIc and IIIIf: | | | | | | | |
| ESNAR | 14,510 | With Elmar 50mm. lens..... | \$ 12.30 | | | | |
| ESFUS | 14,515 | With Summarit 50mm. lens..... | 12.30 | | | | |
| EXOOM | 14,520 | With Summarit 50mm. lens..... | 12.30 | | | | |
| ENTAR | 14,525 | For Leica IIf, IIIf, IIIc and IIIIf, with 28mm., 35mm., Elmar and Summarit 50mm. lenses with Imarect Finder or Leica-Meter attached..... | 24.00 | | | | |
| ESOOR* | 14,530 | Similar to ESNAR, but for camera fitted with Leicavit rapid winder..... | 12.60 | | | | |
| EPZOO* | 14,535 | Similar to ESFUS, but for camera fitted with Leicavit rapid winder..... | 12.60 | | | | |
| EMOOX* | 14,540 | Similar to EXOOM, but for camera fitted with Leicavit rapid winder..... | 12.60 | | | | |
| EHOOB | 14,545 | Leather combination case, brown, with carrying strap, holding Leica camera, four lenses—35mm., 50mm., 90mm. and 135mm., universal viewfinder, three cassettes, lens hoods, eight filters, wire releases, etc..... | 38.85 | | | | |
| * Not yet available. | | | | | | | |
| Leather cases, brown: | | | | | | | |
| ETILA | 14,550 | For Hektor 28mm., Summaron or Elmar 35mm..... | \$ 2.40 | | | | |
| ETIME | 14,560 | For Elmar 50mm..... | 2.40 | | | | |
| ETBIX | 14,565 | For Summarit and Summarit 50mm..... | 2.40 | | | | |
| ENOOV | 14,570 | For Summarex 85mm. (with carrying strap)..... | 8.10 | | | | |
| ETINI | 14,575 | For Elmar 90mm. (with carrying strap)..... | 6.60 | | | | |
| ETIPO | 14,580 | For Hektor 135mm. (with carrying strap)..... | 7.20 | | | | |
| EMTOO | 14,585 | For Telyt 200mm. or Hektor 135mm. (OHEBO) and mirror reflex housing (with carrying strap)..... | 24.00 | | | | |
| Plastic boxes, (transparent) included in prices of new lenses: | | | | | | | |
| BOORW | 14,590 | For Hektor 28mm., Summaron, Elmar 35mm. and Elmar 50mm..... | \$.90 | | | | |
| BOOSK | 14,600 | For Summarit and Summarit 50mm..... | 1.20 | | | | |
| BOOPV | 14,605 | For Elmar 90mm..... | 1.20 | | | | |
| BDOOZ | 14,610 | Bakelite Box (black) for Hektor 135mm..... | 1.50 | | | | |
| Leather cases for accessories: | | | | | | | |
| EBOOH | 14,615 | For Imarect Universal Viewfinder..... | \$ 1.80 | | | | |
| COOXN | 14,620 | For optical reflecting viewfinder 35mm..... | 1.20 | | | | |
| COOYA | 14,625 | For optical reflecting viewfinder 50mm..... | 1.20 | | | | |
| CPBOO | 14,630 | For optical reflecting viewfinders 85mm., 90mm. or 135mm..... | 1.20 | | | | |
| RWBOO | 14,635 | For frame viewfinder ROSOL..... | 1.20 | | | | |
| EHLOO | 14,640 | For rangefinder FOKOS..... | 2.10 | | | | |
| APOOM | 14,645 | For self-timer APDOO..... | .90 | | | | |
| UYOOQ | 14,650 | Fibre case for Universal Bellows Focusing Device..... | 12.00 | | | | |
| ONLIO | 14,655 | Canvas bag for portable copying equipment..... | 21.00 | | | | |
| POOSD | 14,660 | Transparent plastic box for filters for Summarit and of standard diameter..... | .45 | | | | |
| DARKROOM EQUIPMENT | | | | | | | |
| ABLON | 15,000 | Film trimming template..... | \$ 2.40 | | | | |
| AGRIF | 15,005 | Hand film winder..... | .60 | | | | |
| AFLOO | 15,010 | Table film winder..... | 7.50 | | | | |
| ABCOO | 15,015 | Film cutting knife..... | 1.50 | | | | |
| CORUN | 15,020 | Leica developing tank, 16 oz. (500cc.) | 9.00 | | | | |
| CORYB | 15,025 | Spare celluloid apron for same, moulded on both sides..... | 3.60 | | | | |

| Code Word | Catalog Number | Item | Retail List Price | Code Word | Catalog Number | Item | Retail List Price |
|---|----------------|--|-------------------|-------------|----------------|--|-------------------|
| Leica flash attachments for Leica Models If, IIf and IIIc: | | | | UXOOR-he | 16,555 | Universal Bellows Focusing Device to be used with Hektor 135mm., and Mirror Reflex Housing for continuous focusing from infinity to ratio 1:1 (Cannot be used with Hektor lenses with serial numbers below 241,000.) | \$ 58.50 |
| CEYOO | 16,020 | Consisting of: small battery case fitting into the accessory shoe of the camera, with capacitor insert, 22.5 Volt "B" battery, for standard flash bulbs with ejector adapter for midget bulbs, fan-type reflector, adjustable for all bulb sizes, with connecting cable and synchro-contact plug, including connector CUMOO. | \$ 24.00 | UXOOR-el | 16,560 | Universal Bellows Focusing Device to be used with Elmar 50mm. and Leica Focalside Attachment for continuous focusing within object distances of approximately 10-45 in. | 58.50 |
| ZIOOQ | 16,025 | (When using flash unit CEYOO with Leica If and viewfinder SBOOI a special adapter will be necessary). | .90 | UZEOO | 16,565 | Bellows sunshade with interchangeable mask. | 16.50 |
| CAVOO-A | 16,030 | For non-synchronized Leica cameras: same as above, plus external synchronizer operated by shutter speed setting dial, including special speed setting dial with fixed contact points, synchronization limited to 1/100 sec. using long peak flash bulbs. For models Standard to III from No. 215,651. | 33.00 | UOOST | 16,570 | Divisible interchangeable extension collar for Hektor 135mm. | 4.80 |
| CAVOO-B | 16,035 | Ditto, for models IIIa and IIIb from No. 226,001. | 33.00 | UOOTG | 16,575 | Same, for Elmar 90mm. | 4.80 |
| CAVOO-C | 16,040 | Ditto for models Ic and IIc. | 33.00 | UOOVH | 16,580 | Extension tube of outfit UOOST for Hektor 135mm. | 1.35 |
| CAVOO-D | 16,045 | Ditto, for model IIIc Nos. 360,001 to 392,600. | 33.00 | UOOWV | 16,585 | Same, of outfit UOOTG, for Elmar 90mm. | 1.35 |
| CAVOO-E | 16,050 | Ditto, for model IIIc Nos. 392,601 to 397,000. | 33.00 | UOOWV | 16,590 | Interchangeable collar which takes tubes UOOVH or UOOWV. | 3.45 |
| CAVOO-F | 16,055 | Ditto, for Model IIIc from No. 397,001. | 33.00 | UYCOO | 16,595 | Interchangeable bayonet adapter for Elmar 50mm. | 4.80 |
| VLOOF | 16,060 | Spare folding, fan-type reflector. | 6.00 | UYOOQ | 14,650 | Fitted fibre case for Universal Bellows Focusing Device with mirror reflex housing, focusing stage, Leica and accessories. | 12.00 |
| COOQW | 16,065 | Spare test bulb. | .25 | UWYOO | 16,600 | Adapter plate for using the Universal Bellows Focusing Device on the carrying arms ROONP and ROOFU. | 2.10 |
| COOUY | 16,070 | Spare B.C. insert without "B" battery. | 2.70 | OOZAB | 16,605 | Leica Focalside Attachment. | 36.00 |
| COOVM | 16,075 | Spare 22.5 volt "B" battery. | 1.15 | ZOOXY | 16,610 | Helical focusing mount 1:17 to 1:2 (for Elmar 50mm. only). | 12.00 |
| COOWZ | 16,080 | Spare B.C. insert with 22.5 volt "B" battery. | 3.85 | ROOYH | 16,615 | Repro extension tube (26mm.). | 2.70 |
| COOIF | 16,085 | Spare external synchronizer "Vacu" for unit CAVOO with connecting cable and plug including connector CUMOO (state camera model and serial number). | 13.50 | VALOO | 16,620 | Diaphragm actuating ring. | 6.60 |
| CNOOS | 16,090 | Connecting cable only, as supplied with CEYOO, including connector CUMOO. | 3.30 | LVFOO | 16,625 | Focusing magnifier 5x, wide field. | 21.00 |
| COONS | 16,095 | Connecting cable with special camera plug and plug to connect flash attachments on other than Leitz. | 3.30 | OPKOM | 14,075 | Wire release with fixing screw. | 1.62 |
| CUMOO | 16,100 | Connector fitting extension cables with plug sockets other than Leitz (supplied with every flash unit and spare cable). | .60 | OOZMY | 16,630 | Basic outfit, complete. | 79.92 |
| COOKT | 16,105 | Extension cable 5 feet long, with coupling | 3.30 | BOOXZ | 16,635 | Extension ring "B" (7mm.). | 1.20 |
| CNXOO | 16,110 | Double connector for simultaneous firing of two flash units. | 2.70 | FVOOQ | 16,640 | Extension ring "F" (15mm.). | 1.50 |
| | | For Leica Models Standard to IIIc: | | GVKOO | 16,645 | Extension ring "G" (30mm.). | 2.70 |
| For using electronic flash and "Strobe" units: | | | | ZWTOO-HESUM | 16,650 | Intermediate focusing mount. | 9.90 |
| COONT* | 16,115 | For Leica Models Standard to IIIc: Special external synchronizer, complete, with connecting cable and plug, including connector CUMOO. | \$ 14.10 | ZOOSI-HESUM | 16,655 | Intermediate focusing mount with 3 extension rings. | 15.30 |
| CMVOO | 16,120 | Spare speed setting dial with fixed contact points for models Standard to IIIc (supplied with every CAVOO, COOIF and COONT). | 1.50 | ZOONT | 16,660 | Elmar 50mm. lenses of older design of the focal length groups 1 to 3 and lenses with no marked focal length group require a special helical mount. (The focal length group is engraved under the infinity catch). | 12.00 |
| *State camera model and serial number. | | | | ZOOMF | 16,665 | 50mm. extension tube for use of Leica Focalside Attachment with Hektor 135mm. lens in short focusing mount ZOOAN or as model OHEBO. | 2.70 |
| NEAR FOCUSING, COPYING AND REPRODUCTION DEVICES | | | | COOED | 16,670 | Short focusing mount for use of Elmar 90mm. on the Leica Focalside Attachment for focusing from infinity to 3½ feet (1 meter). | 16.50 |
| NOOKY | 16,500 | Optical Near Focusing Device: For Elmar f/3.5, 50mm. | \$ 31.50 | VELTU | 16,675 | Simple copying stand consisting of base board 15¼ x 20¾ in. with vertical upright 39 in. high, 32mm. dia. | 16.50 |
| NOOKY-HESUM | 16,505 | For Summar f/2, 50mm. | 31.50 | ROONP | 16,680 | Carrying arm for Focalside Attachment fitting vertical uprights of 32mm. dia. | 12.00 |
| BELUN | 16,510 | Auxiliary Setting Device for photographing small objects in natural size: For Elmar f/3.5, 50mm. | 12.00 | ROOFU | 16,685 | Ditto, for uprights 40mm. dia. | 12.00 |
| BELUN-HESUM | 16,515 | For Summar f/2, 50mm. | 12.00 | SOOWU | 16,690 | Tape measure with holder and weight, fitting ROONP. | 3.30 |
| BEHOO | 16,520 | Extension tube 1:1 (as replacement). | 3.30 | TUSOO | 16,695 | Ditto, fitting ROOFU. | 3.30 |
| | | Auxiliary Setting Device for taking small objects with Elmar f/3.5, 50mm. (reduction 1:15, 1:2, 1:3), consisting of: | | YR00F | 16,700 | Fine focusing slider with rack and pinion for focusing the Focalside on carrying arm. | 25.50 |
| | | Extension tube 1:1.5 | | XBEET | 16,705 | Intermediate bracket with dovetail slide for using the Focalside Attachment on Leitz pillar stands LURTE and U's II. | 9.20 |
| | | " " 1:2 | | OZUPO | 16,710 | Leica Mirror Reflex Attachment with double wire release, without focusing magnifier. | 81.00 |
| | | " " 1:3 | | LVFOO | 16,625 | Focusing magnifier 5x, wide field. | 21.00 |
| | | Universal clamping ring | | OZYXO | 11,055 | Leica Mirror Reflex Attachment complete. | 102.00 |
| | | 4 extensible rods. | 15.00 | PAMOO | 16,715 | Right-angle focusing magnifier 5x (image laterally reversed). | 36.00 |
| BOOWU | 16,525 | Auxiliary setting device: DIN A4 8¼ x 11½" DIN refers to a DIN A5 5½ x 8½" German standard DIN A6 4¼ x 5½" and paper size For all 50mm. Leica lenses, consisting of 3 intermediate extension adapters and 4 extensible legs. | 24.00 | LWHOO | 16,720 | Direct fine focusing magnifier 30x. | 19.20 |
| ELPRO | 16,530 | Supplementary front lens No. 1 (for Elmar 50mm. lens only). | 6.00 | PEGOO* | 16,725 | New angular (45°) magnifier 4x presenting the image erect and in correct left to right orientation. | 45.00 |
| ELPIK | 16,535 | Ditto, No. 2. | 6.60 | OOZEG | 16,730 | Portable Copying Equipment, consisting of: | |
| ELPET | 16,540 | Ditto, No. 3. | 8.40 | KGOON | 14,115 | Folding Stand. | 54.00 |
| VMCOO | 16,550 | Intermediate adapter for use of these front lenses with the Summar f/2, 50mm. | 1.05 | OOZMY | 16,630 | Ball and socket head. | 9.00 |
| | | | | ONLIO | 14,655 | Focalside Attachment, complete outfit. | 79.95 |
| | | | | OMEXO-ROOHY | 16,740 | Canvas bag. | 20.40 |
| | | | | | | Portable Copying Equipment, complete. | 163.35 |

*Not yet available.

| Code Word | Catalog Number | Item | Retail List Price | Code Word | Catalog Number | Item | Retail List Price |
|----------------------------------|----------------|--|--------------------|-------------|----------------|---|-------------------|
| | | Universal Copying Equipment Reprovit I, consisting of: | | VAZEL | 17,550 | Single negative holder, complete..... | \$ 3.30 |
| OVAFO | 16,745 | Baseboard with vertical column..... | \$ 45.00 | VAZUP | 17,555 | Special negative mask 3 x 4cm..... | 1.20 |
| ROOFU | 16,685 | Carrying arm..... | 12.00 | VAZIS | 17,560 | Ditto, 4 x 4cm..... | 1.20 |
| OOZAB | 16,605 | Focalslide Attachment..... | 36.00 | VOONR | 17,565 | Double glass plate 5 x 16cm..... | 4.20 |
| OUTSO | 16,750 | Projection Head..... | 33.00 | CENTO | 17,570 | Extra for VALOY, fitted with vertical upright of 1m. (39 in.)..... | 3.60 |
| ZOOXY | 16,610 | Helical focusing mount..... | 12.00 | ICOOP | 17,575 | Automatic Enlarging Apparatus FOCOMAT Ic, consisting of baseboard 16 x 21 in., vertical upright 32 in. high, 40mm. dia., with automatically focusing enlarging head, with opal bulb 75 Watts..... | 147.00 |
| VALOO | 16,620 | Diaphragm actuating ring..... | 6.60 | DOOIT | 17,580 | Elmar f/3.5 50mm., special enlarging lens with click stops, coated..... | 45.00 |
| ROOSE | 16,755 | Basic REPROVIT equipment..... | 144.60 | FPYOO | 17,585 | Enlarging easel 8 x 10 in..... | 22.50 |
| UVWOO | 16,760 | 4-way adapter for connecting four desk lamps for the illumination of the object. Universal Copying Equipment REPROVIT II, consisting of: | 2.70 | FOOES | 17,590 | Orange filter..... | 7.80 |
| RIOOX | 16,765 | Baseboard with double column and carrying arm for focusing stage, steel tape measure and built-in change-over switch | 156.00 | ICWOO | 17,600 | FOCOMAT Ic, complete..... | 222.30 |
| ROOAI | 16,770 | Special focusing stage with fine adjustment and scales..... | 105.00 | ICOOP-COLOR | 17,605 | FOCOMAT Ic—color, basic equipment but with additional outfit for color enlargements consisting of filter holder for special filters and illuminated magnification indicator on baseboard..... | Not yet available |
| RDQOO | 16,775 | Lens diaphragm lever and lever operating guide..... | 7.20 | ICWOO-COLOR | 17,610 | Complete color equipment including enlarging lens, printing board and orange filter..... | Not yet available |
| OUTSO | 16,750 | Projection Head..... | 33.00 | | | | |
| DOOGS | 16,780 | Repro-Elmar f/3.5, 50mm., coated..... | 45.00 | | | | |
| RK'OOO | 16,785 | Four-Lamp illumination arrangement..... | 99.00 | | | | |
| RF'OOO | 16,790 | Special assembling tool..... | .45 | | | | |
| ROOXU | 16,795 | Basic REPROVIT II equipment..... | 445.65 | | | | |
| RGWOO | 16,800 | Framing box, with clamping mechanism 16 5/8" x 23 3/4"..... | 111.00 | | | | |
| OOEVM | 16,805 | Light box (trans-illuminator), (approx. 7 x 9 1/2x)..... | 42.00 | | | | |
| OOEUK | 16,810 | Ditto, (approx. 14 x 16")..... | 84.00 | | | | |
| BE'UL | 16,815 | Flex with switch, 5 ft. long..... | 5.00 | | | | |
| SUMAN-ROOVZ | 16,820 | Micro-Summar f/4.5, 24mm. with intermediate adapter for REPROVIT II..... | 70.00 | | | | |
| ROOYH | 16,615 | Extension ring REPRO (22mm.)..... | 2.70 | | | | |
| | | Spare bulbs: | | | | | |
| VOLAM | 16,825 | For the projection head 100 Watt..... | | | | | |
| VFOOL | 16,830 | For the four-lamp illumination arrangement, 100 Watt..... | | | | | |
| BERAT | 16,835 | For illuminating box 18 x 24 cm., 25 Watt..... | | | | | |
| VKOOK | 16,840 | For illuminating box 36 x 40 cm., 60 Watt..... | | | | | |
| | | | Price upon request | | | | |
| ACCESSORIES FOR PHOTOMICROGRAPHY | | | | | | | |
| MIKAS | 17,000 | Leica Micro-Ibso Attachment with optical extension tube 1/3x, including two cable releases and one Periplanatic eyepiece 10x..... | \$108.00 | | | | |
| MIBAC | 17,005 | Ditto, with optical extension tube 1/2x..... | 111.00 | | | | |
| CALOS | 17,010 | Cable Release..... | 10.00 | | | | |
| GIIBR | 17,015 | Spare cable release with set screw..... | 2.00 | | | | |
| GIIFT | 17,020 | Ditto, without set screw..... | 1.80 | | | | |
| GIIEF | 17,025 | Interchangeable optical extension tube with reducing system 1/3x..... | 14.00 | | | | |
| GJIMW | 17,030 | Ditto, with system 1/2x..... | 17.00 | | | | |
| GDIHK | 17,035 | Intermediate adapter for using the Micro-Ibso Attachment on Leitz Polarizing microscopes with wide tubes..... | 4.00 | | | | |
| AGIUH | 17,040 | Clamping ring for draw tubes, internal diameter 25.4mm. (stand G)..... | 3.00 | | | | |
| GFEIH | 17,045 | Ditto, internal diameter 31.8mm. (stand B)..... | 3.20 | | | | |
| RPNOO | 17,050 | Micro adapter with optical reducing system 1/3x, including two cable releases, but without eyepiece (for focusing stage and REPROVIT)..... | 100.00 | | | | |
| PEZEN | 17,055 | Periplanatic eyepiece 10x..... | 13.00 | | | | |
| BE'CH | 17,060 | Monla Microscope lamp, 6 volts, 5 amps..... | 38.00 | | | | |
| REDYX | 17,065 | Regulating transformer for same, 110-220 volts, A.C..... | 45.00 | | | | |
| REDIG-BEEUL | 17,070 | Resistance for same, 110 volts, D.C..... | 21.00 | | | | |
| LNID | 17,075 | Spare bulb, 6 volts, 5 amps..... | 2.50 | | | | |
| DTEEO | 17,080 | Photographic green filter..... | 7.50 | | | | |
| IFSTA | 17,085 | Lifa Filter Stand..... | 12.00 | | | | |
| ENLARGERS | | | | | | | |
| VALOY | 17,500 | Leica Enlarger VALOY for use with interchangeable Leica Lenses, comprising baseboard 15 1/2 x 17 1/2 in., vertical upright 32 in. high, 32mm. dia. enlarging head with opal bulb 75 watts..... | \$ 81.00 | | | | |
| FYLTO | 17,505 | Orange filter for same..... | 9.90 | | | | |
| FELUK | 17,510 | Enlarging easel 8 x 10 inches..... | 22.50 | | | | |
| | | Film slides for enlargers VALOY and FOCOMAT I, Ia and Ic: | | | | | |
| VDOON | 17,515 | For size 18 x 24mm..... | 2.40 | | | | |
| VNOOD | 17,520 | " " 24 x 24mm..... | 3.00 | | | | |
| VDMOO | 17,525 | " " 24 x 36mm. (for replacement)..... | 3.00 | | | | |
| VAVIR | 17,530 | " " 3 x 4cm..... | 4.80 | | | | |
| VAKES | 17,535 | " " 4 x 4cm..... | 4.80 | | | | |
| | | Accessories for single negatives (for FOCOMAT I, Ia and Ic and VALOY): | | | | | |
| VBOOP | 17,540 | Negative mask 24 x 36mm..... | 1.20 | | | | |
| VCOMID | 17,545 | Double glass plate 3.5 x 12cm..... | 2.10 | | | | |
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LEITZ NEW AUXILIARY REPRODUCTION DEVICE

One of the Leica camera's greatest values is its application for close-up photographs of all kinds. Most Leica owners are familiar with such devices as the Bellows, NOOKY, BAZOO, BELUN, etc. Leitz has now produced the BOOWU, an extremely versatile, yet simple device, for photographing objects with a reproduction ratio of 1:4, 1:6, and 1:9. The BOOWU is basically designed to photograph three areas, designated as:

DIN A4 ($8\frac{1}{4}" \times 11\frac{5}{8}"$) or 210mm. x 297mm.,

DIN A5 ($5\frac{7}{8}" \times 8\frac{1}{4}"$) or 148mm. x 210mm.,

DIN A6 ($4\frac{1}{8}" \times 5\frac{7}{8}"$) or 105mm. x 148mm.

DIN A4, A5, and A6 refer to paper sizes which conform to the German industrial specifications. Three extension adapters and four extendable legs comprise the device. They are used with the Leica camera and any of the

Continued on page 37

Right: Leica BOOWU Auxiliary Reproduction Device, Elmar 50mm lens and sunshade.

Below: Leica If, with the Auxiliary Reproduction Device "BOOWU" used in the field. Shown with one leg removed.



RETAIL PRICE LIST (Continued from page 14)

| Code Word | Catalog Number | Item | Retail List Price* |
|-------------------------------|----------------|--|--------------------|
| LEITZ PRISM BINOCULARS | | | |
| LINAR | 18,000 | 3 x 13.5 Central wheel focusing..... | \$ 87.00 |
| OBBERON | 18,005 | 3.2 x 14 " " "..... | 84.00 |
| BITUR | 18,010 | 4 x 20 " " "..... | 90.00 |
| BINOLIT | 18,015 | 6 x 25 " " "..... | 99.00 |
| BIDOX | 18,020 | 6 x 30 Separate eyepiece focusing..... | 108.00 |
| BIDOXIT | 18,025 | 6 x 30 Central wheel focusing..... | 114.00 |
| BINUX | 18,030 | 8 x 30 Separate eyepiece focusing..... | 120.00 |
| BINUXIT | 18,035 | 8 x 30 Central wheel focusing..... | 126.00 |
| MARSEPT | 18,040 | 7 x 50 Separate eyepiece focusing..... | 156.00 |
| MARSEPTIT | 18,045 | 7 x 50 Central wheel focusing..... | 162.00 |
| MAROCITO | 18,050 | 8 x 60 Separate eyepiece focusing..... | 186.00 |
| MAROCITIT | 18,055 | 8 x 60 Central wheel focusing..... | 192.00 |
| CAMPAR | 18,060 | 10 x 40 Separate eye piece focusing..... | 171.00 |
| CAMPARIT | 18,065 | 10 x 40 Central wheel focusing..... | 177.00 |
| MARDIX | 18,070 | 10 x 50 Separate eyepiece focusing..... | 165.00 |
| MARDIXIT | 18,075 | 10 x 50 Central wheel focusing..... | 171.00 |
| DECIMAR | 18,080 | 10 x 60 Separate eyepiece focusing..... | 186.00 |
| DECIMARIT | 18,085 | 10 x 60 Central wheel focusing..... | 192.00 |
| CAMPOMAR | 18,090 | 12 x 50 Separate eyepiece focusing..... | 183.00 |
| CAMPOMARIT | 18,095 | 12 x 50 Central wheel focusing..... | 189.00 |
| MARDOCE | 18,100 | 12 x 60 Separate eyepiece focusing..... | 189.00 |
| MARDOCEIT | 18,105 | 12 x 60 Central wheel focusing..... | 195.00 |
| CAMPOFORT | 18,110 | 15 x 60 Separate eyepiece focusing..... | 198.00 |
| CAMPOFORTIT | 18,115 | 15 x 60 Central wheel focusing..... | 204.00 |

| Code Word | Catalog Number | Item | Retail List Price* |
|-----------------------------------|----------------|---------------------------------|--------------------|
| LEITZ PRISMATIC MONOCULARS | | | |
| MONTUR | 18,500 | 4 x 20..... | \$ 42.00 |
| MONDAL | 18,505 | 6 x 15..... | 39.00 |
| MONOL | 18,510 | 6 x 24..... | 45.00 |
| MONDOX | 18,515 | 6 x 30..... | 54.00 |
| MONUX | 18,520 | 8 x 30..... | 60.00 |
| MOMAR | 18,525 | 7 x 50..... | 78.00 |
| MONACHT | 18,530 | 8 x 60..... | 93.00 |
| MONOCAMP | 18,535 | 10 x 40..... | 85.50 |
| MONDIX | 18,540 | 10 x 50..... | 82.50 |
| MONDIMAR | 18,545 | 10 x 60..... | 93.00 |
| MONOMAR | 18,550 | 12 x 50..... | 91.50 |
| MONDOCE | 18,555 | 12 x 60..... | 94.50 |
| MONOFORT | 18,560 | 15 x 60..... | 99.00 |
| | 18,565 | Leather rainguard..... | 1.65 |
| | 18,570 | Rubber rainguard..... | .96 |
| | | Filters in slip-on mount: | |
| | 18,575 | No. 1 light yellow..... | pair 2.85 |
| | 18,580 | No. 2 orange..... | |
| | 18,585 | No. 3 red-orange..... | |
| | 18,590 | No. 4 light red..... | pair 3.60 |
| | 18,600 | Neophan filter (red-green)..... | |
| | 18,605 | Reticule with mount..... | extra cost 7.80 |

Handsome brown solid leather case with carrying straps both for the case and the glasses are included in the above prices.

*Subject to 20% Retail Sales Tax to be collected by Dealer.



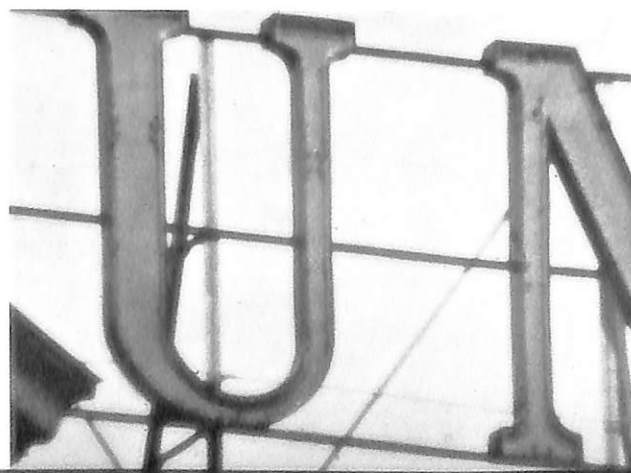
Above: Picture of sign used as subject
Below: Standard 12½mm. lens for 8mm. camera



Below: Results with the 90mm. Elmar lens
on the 8mm. movie camera



Below: Results with the 135mm. Hektor
lens on the 8mm. movie camera



Use *Leica* Lenses on Your

by **Buddy Sarkissian,**

"Look, you're crazy! It's just a gimmick! You can't use Leica lenses for 16mm. movie cameras and if you mention their use for 8mm. cameras again I'll say you're nuts, too."

That's the way it started. It was just a few years ago—I was a salesman for a franchised Leica dealer and was always enthused about everything connected with Leica products. Leitz had just announced the availability of an adapter allowing the use of all the Leica lenses with any standard 16mm. "C" mount movie camera. Shortly after the news about *their* cine adapter, a few other companies made adapters to allow the use of 16mm. standard "C" mount lenses on standard 8mm. cameras. Then I asked myself—"if the Leica cine adapter corrects the 35mm. lenses down to standard "C" mount and another adapter corrects standard 16mm. "C" mount lenses down to standard 8mm. mounts, then two plus two equals five or -?!" It was as simple as that! That is, it sounded logical to me . . . or did it? If it worked, history was in the making for amateur cine masters!

Then came the battle of trying to pass on the information. There were all kinds of remarks: "Sounds good! But will it work?" — "It might be possible for 16mm., but the resolving power of the lenses wouldn't hold together for 8mm. use." — "Sure it'll work!" — "I doubt it!" Even my boss was skeptical. That did it! I was determined to prove it one way or another. On paper and by word of discussion it didn't sound too bad — just a few minor technicalities. Here we go again. . . . "O.K., use a 50mm. Summar on the 16mm. camera and use the proper viewfinder, but when you use the 135mm. Hektor —?"

So began the trials and tribulations of a frustrated camera salesman! Where equipment was concerned, I was lucky. I had at my disposal both an 8mm. and a 16mm. movie camera and all the Leica lenses I needed, including the 50mm. f/2 Summar, the 50mm. f/3.5 Elmar, the Summaron, the 90mm. f/4 Elmar, and the 135mm. f/4.5 Hektor. Blend them together with a tripod, two adapters, and a mess of calculations, and I was ready to start.

The paper work showed that a subject about four hundred yards away would be ideal for the experiment: so I selected a large neon sign (see illustration) set at about that distance and set up my tripod. Then I pro-

Movie Camera

Lowell, Mass.

ceeded to shoot a few feet of film, with the standard 25mm. lens on the 16mm., then the 50mm. Summar, the 50mm. Elmar, the 35mm. Elmar, the 90mm. Elmar, and the 135mm. Hektor.

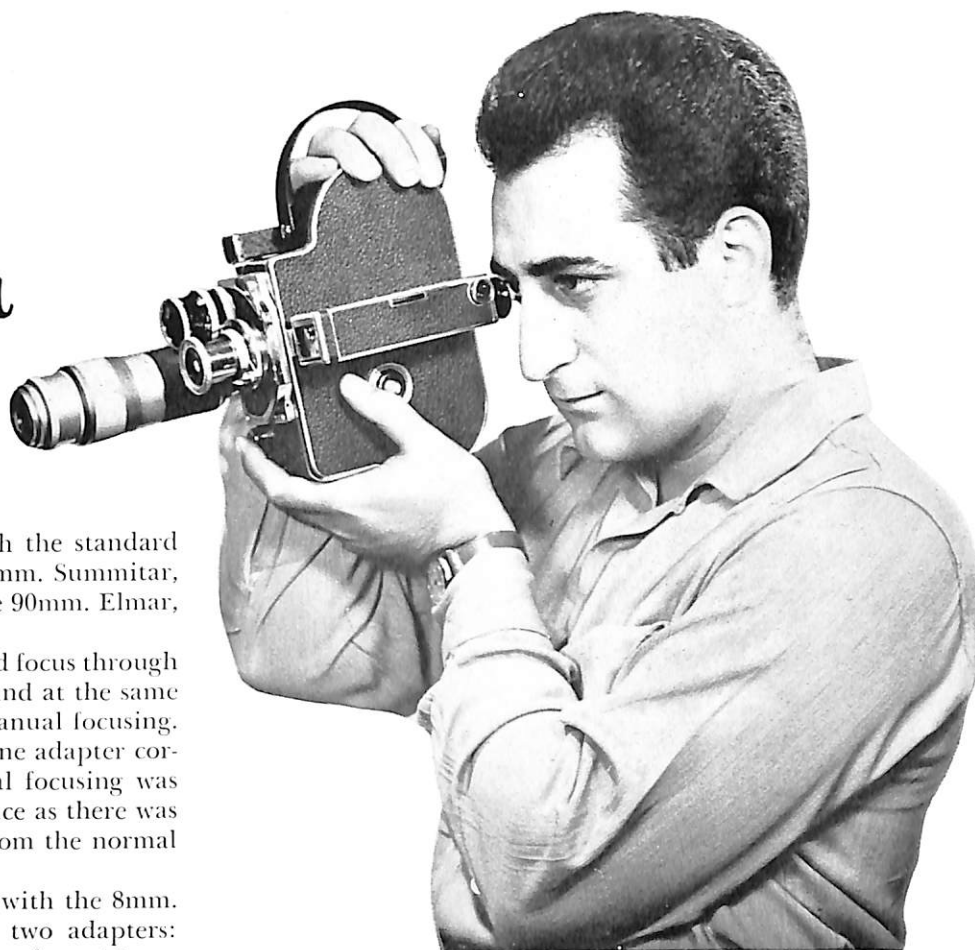
With the 16mm. I used, I found I could focus through the prismatic finder without difficulty, and at the same time I was able to check distances by manual focusing. It was immediately apparent that the cine adapter corrected the lens mounting so that manual focusing was accurate. Exposure was of no consequence as there was no apparent reason for any variation from the normal settings.

Then I repeated the same procedure with the 8mm. camera, using the combination of the two adapters: 8mm. up to 16mm., and the cine adapter from 16mm. up to the standard Leica lens mount. My interest increased with the use of the Leica lenses on an 8mm. camera. The 135mm. Hektor dwarfed the camera. According to calculations, this combination would produce an eleven-times magnification.

Having no prismatic finder on the 8mm., I was forced to depend entirely on manual focusing and had to practically use pinholes for viewfinding. I sighted the camera with a gunsight as well as possible and hoped for the best.

Left: Elmar 50mm. lens mounted on Bolex L8 movie camera

Right: Hektor 135mm. lens mounted on Bolex H-16 movie camera

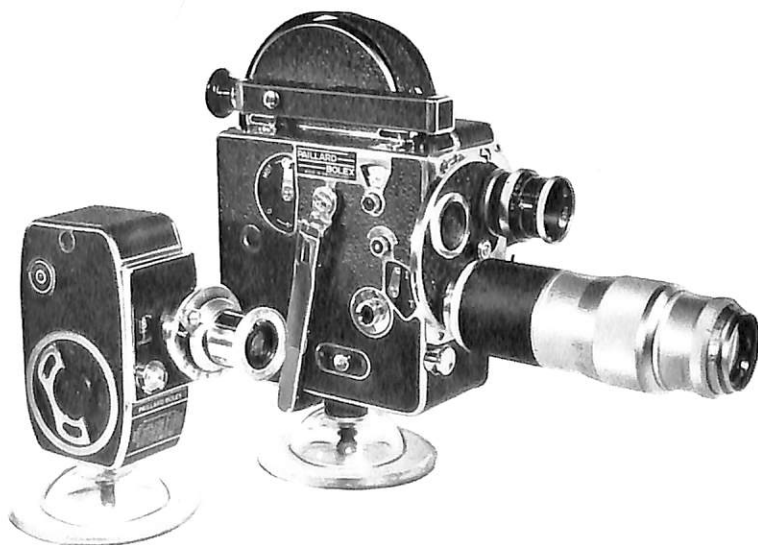


Elmar 50mm. lens and Hektor 135mm. lens mounted on the Bolex DeLuxe Model H-16 camera, using the Leitz adapter for all Standard "C" mount lenses

Finally the shooting was over, and there was no time wasted in mailing the film. One "long" week later, it returned, and as luck would have it, some of the doubtful skeptics happened to be in the store as the mailman walked in. Hurriedly I threaded a 16mm. projector and threw on the switch. We all sat back and watched! The results were everything I had hoped for and better. The sharpness of all the Leica lenses proved to be far superior to anything previously recorded with the standard 16mm. lens I had used. There was no apparent loss of resolution.

It was a wonderful feeling to see the neon sign I had chosen as a subject move closer on the screen by leaps and bounds with the image staying sharp through the entire film. For comparative purposes I transferred the portion of the film taken with the 25mm. lens to a separate 16mm. projector so that each one of the Leica lenses could be compared to it. From the standard lens the step up to the 35mm. wide angle was not too apparent except for a change in perspective. A definite change was noticeable going up to the Elmar 50mm. as compared with the 25mm. lens. The results of the 50mm. Summar were similar to the 50mm. Elmar. A two-times magnification of the neon sign was obvious in both cases.

Continued on page 42



AN EDITORIAL

... About The Leitz Family

WE ARE taking this opportunity to tell you something about Ernst Leitz, Wetzlar, ourselves, and our plans for the future.

Ernst Leitz, Wetzlar, is 103 years old. It first achieved world-wide prominence through development of microscopes and other high precision optical instruments. In 1924 its introduction of the Leica camera (LEitz CAmera) revolutionized photography because, for the first time, the exacting standards of high quality microscope manufacture were adapted to making a camera. The quality of the Leica camera and Leitz precision binoculars, microscopes, and other scientific instruments has made them the leaders throughout the world.

The plants of Ernst Leitz are located in Wetzlar, Germany, which is in the American Zone about 40 miles north of Frankfurt. These properties escaped damage during the war and the production of Leica cameras and scientific instruments was uninterrupted throughout this period except for a brief shut-down immediately after the war due to a shortage of power. Since the war the properties have been expanding as rapidly as the staff can be trained for the precision work required. At the present time approximately 5500 are employed in the plants.

Ernst Leitz, Wetzlar, is owned and operated by members of the Leitz family, who are devoting their efforts to continued leadership in the field of optical research and precision manufacture. New instruments have been developed which are unique in their field and are being used extensively in this country in important developments. The research has also included the field of photography and is reflected in improvements which have been made in the Leica camera, such as built-in synchronization, etc. The research program gives promise of many new developments which will be of great interest to photographers.

The distribution of products of Ernst Leitz, Wetzlar, has been accomplished in the United States through E. Leitz, Inc. of New York. During the war the stock of the New York company was taken over by the Alien Property Custodian. During the past summer the Office of Alien Property divested itself of the stock of E. Leitz, Inc. of New York through a public sale. Neither Ernst Leitz, Wetzlar, nor any members of the Leitz family have any financial interest in E. Leitz, Inc. of New York. However, members of the Leitz family have expressed their pleasure in the return of E. Leitz, Inc. to private ownership inasmuch as it assures continuity of management and policies and permits orderly planning for a greatly expanding market in the United States for Leica and Leitz products. We are happy to report the assurances which have been given to us of an adequate supply of Leica cameras and accessories as well as Leitz binoculars, microscopes, and scientific instruments.

Our organization is staffed by individuals with many years of experience in handling Leitz products. It is our aim to give our many friends who are now owners of Leica cameras and Leitz products the finest service possible with respect to repairs, accessories, and information of interest. It is also our hope that we may introduce many others to the pleasures of owning these fine precision products.

E. Leitz, Inc.

VIGNETTING IN PHOTOGRAPHIC OBJECTIVES

By Dr. Georg Franke

Reprinted Courtesy Leica Fotografie

THE quality of photographic objectives is, in general, established by references to two main considerations: the aperture and the degree of correction of image defects. This latter factor is beset with its own very special problems and it is small wonder that opinions on this subject shows wide divergence. With this aspect of lens correction we shall deal in detail in a later article.

In contrast, aperture appears to be a simple concept easy of definition. Each lens has its maximum aperture engraved on the lens mount as a ratio, but this ratio often deserves further investigation because the reputed aperture engraved on some lenses does not always correspond with the actual maximum lens opening. Curiously enough, in such cases the engraved figure is always optimistic. The agreed tolerance limits are 5%, and this is a much larger tolerance than is necessary in rationalized lens production. Some manufacturers have used these tolerances to give their lenses rated apertures greater than they in fact are. In some cases the difference between reputed and actual maximum opening is as much as 10%. The user is mostly unaware of this because few would go to the trouble of measuring the aperture if the general performance of the lens is satis-

of the diaphragm opening or stop determines the cross-section of the bundle of rays which will form the image. The diameter, $2D$, of the bundle of rays entering the first component divided by the focal length, F , of the objective is the aperture $\frac{2D}{F}$. If the front component

were made larger than shown in fig. 1 there would be no gain in light transmission because the governing factor is the diameter of the bundle which can pass through the aperture stop. Starting from this premise the diameters of the first and last components need only be large enough to accept and transmit the maximum diameter of the bundle of rays which can in fact pass through the stop. In practice most lenses are constructed on this principle.

In photographic practice, however, we are dealing not with tiny objects depicted in the centre of the screen plane but with subjects having extensive dimensions, such as landscapes, groups and portraits. Consideration of a point imaged in the centre of the screen plane does not suffice. We must also examine the conditions under which an image is formed in the corners of the screen plane. To this end we now allow a bundle

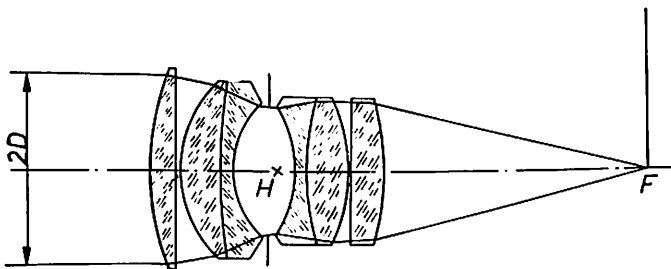


Fig. 1

factory. There is, however, an appreciable difference between actually correcting a lens for the full aperture at which is rated and merely rating it 10% faster than it really is.

We have used the term "maximum aperture". What does this mean? Let us suppose that we wish to photograph a point source of light at infinite distance bringing it to a focus at the centre of the screen or image plane. All rays from this point source are paraxial, or parallel to the optical axis of the objective until they strike the first lens surface. The front components refract these rays which then pass through the diaphragm opening, are again refracted by the rear components and come to a focus in the screen plane. The diameter

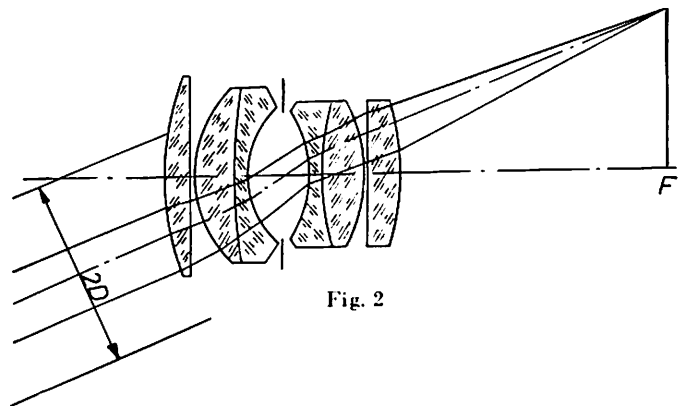


Fig. 2

of parallel but not paraxial rays of the same cross-section, $2D$, to strike the lens at an angle equal to that subtended by the corners of the screen plane. (Fig. 2.) It is at once apparent that even the front component no longer accepts the whole bundle, part of which is now intercepted by the lens mount or fastenings on incidence and again on emergence, so that a proportionately smaller number of rays is available for image formation. This reduction in the cross-section of the bundle of rays is known as vignetting. It is best observed with the lens held against a plain white illuminated surface with the observer at some distance from the lens and looking into it through the front component. The bright round surface that is then visible—a photo-

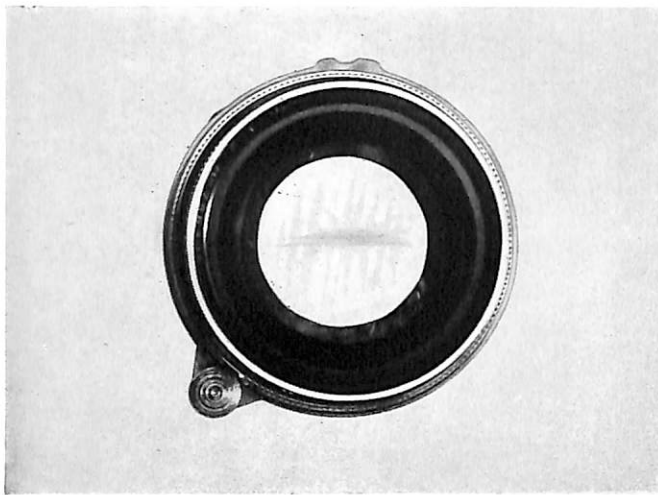


Fig. 3a

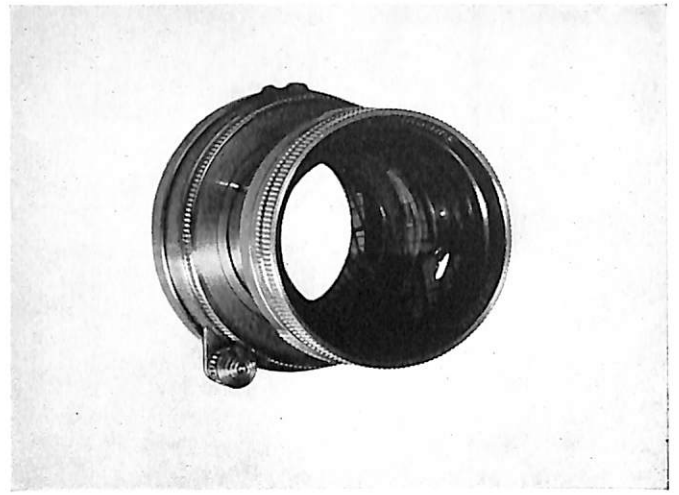


Fig. 3b

graph of which is shown in fig. 3a—is known as the entrance pupil of the particular optical system under examination. If the lens is canted away from the observer so that he looks obliquely through the front component the circular entrance pupil is progressively restricted

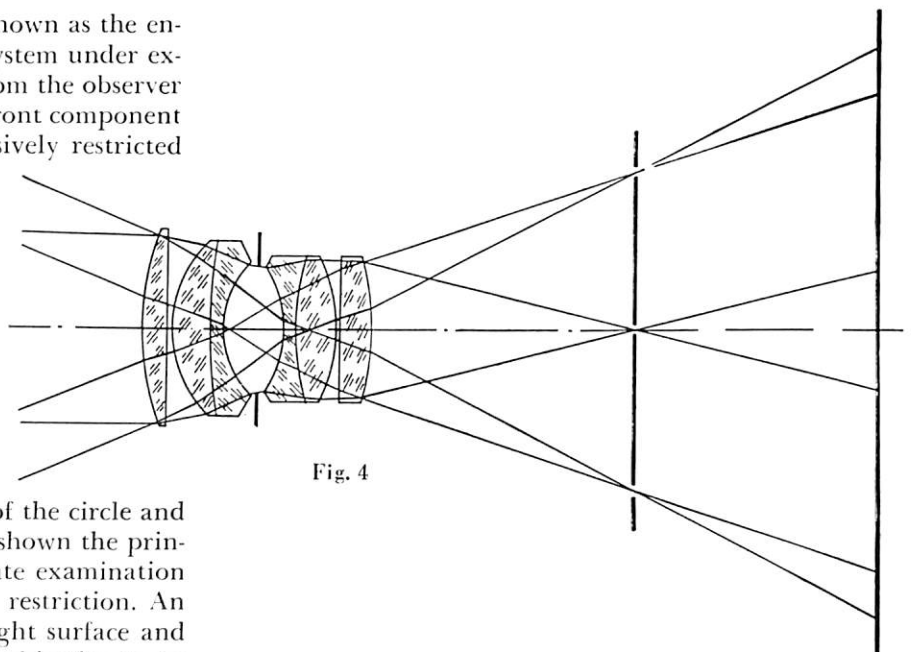


Fig. 4

between ever smaller intersecting arcs of the circle and appears as shown in fig. 3b. In fig. 4 is shown the principle of the instrument used to facilitate examination and enable exact measurement of the restriction. An opaque plate is substituted for the bright surface and it is placed in the screen plane of the objective to be examined. This opaque plate has small holes drilled in it over an area corresponding to the objective's image field. These holes are drilled in the optical centre of

Continued after Salon Section

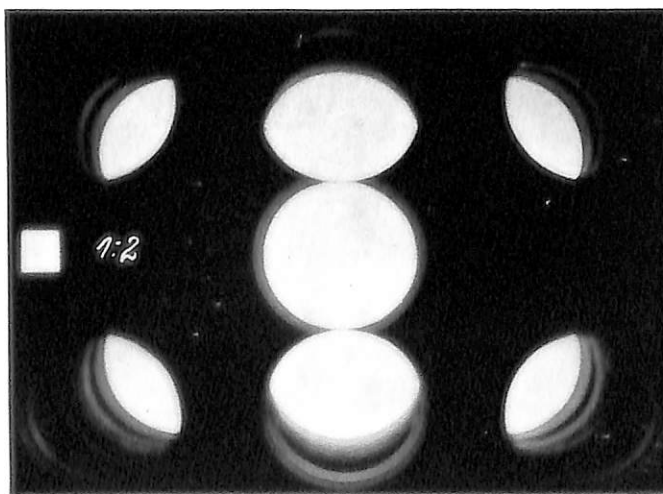


Fig. 4a

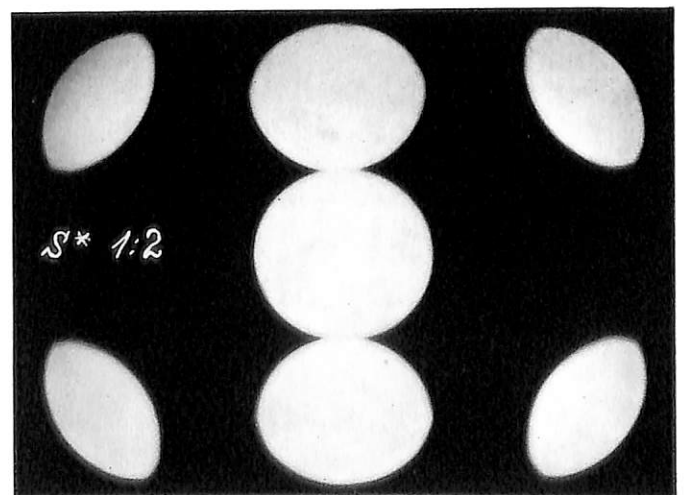


Fig. 4b



STEM CHRISTY
Wendy Hilty



NONE TOO YOUNG
Wendy Hilly



WIDE ANGLE CREATION
Wendy Hilty



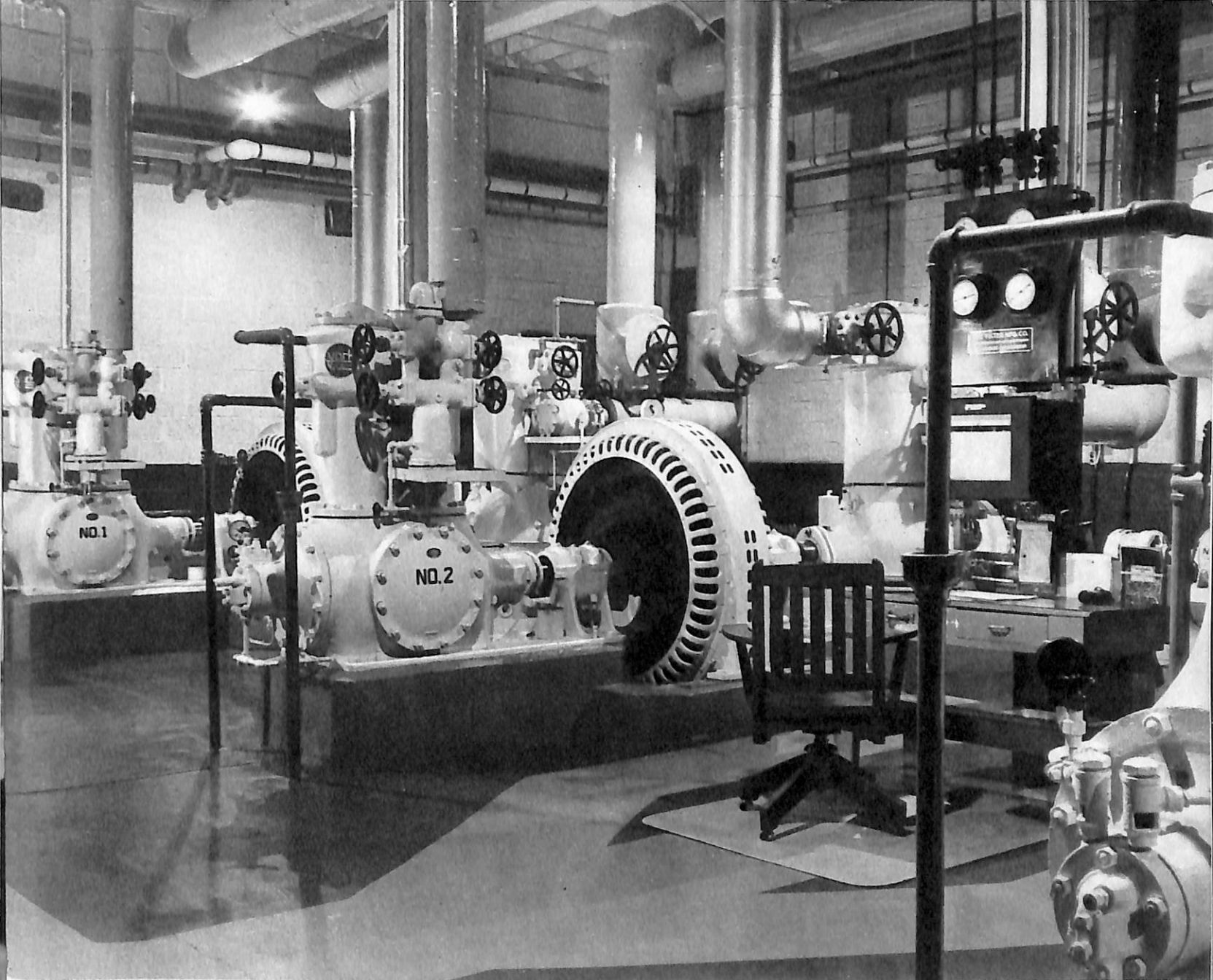
TOP O' BIG BROMLEY
John V. Convente



SKIER'S PARADISE
John V. Convente

OUTDOOR DISORDER
Robert F. Venegas





IMMACULATE
Chester J. Conn



SKI POLE ABSTRACT
Wendy Hilly

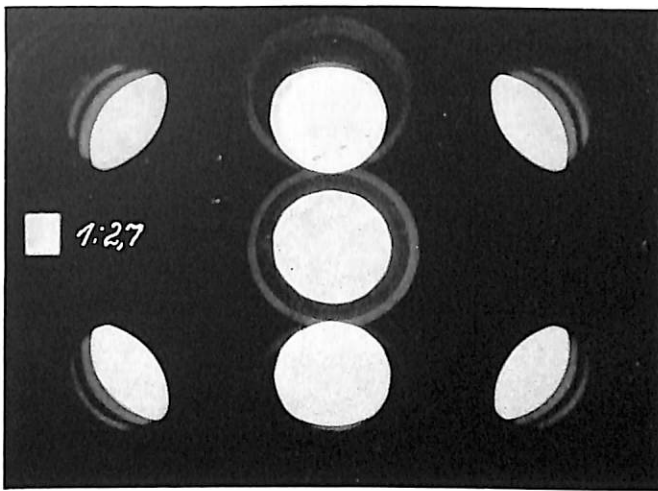


Fig. 5b

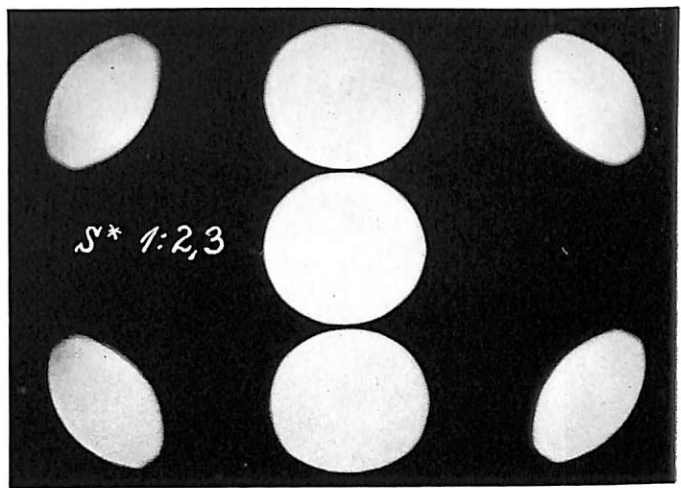


Fig. 6b

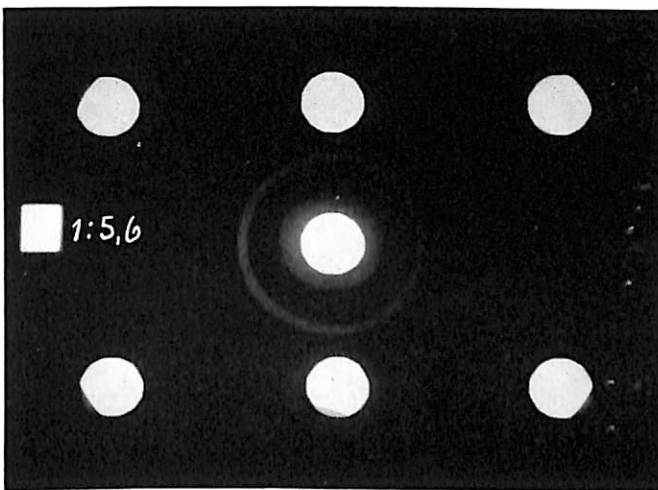


Fig. 5c

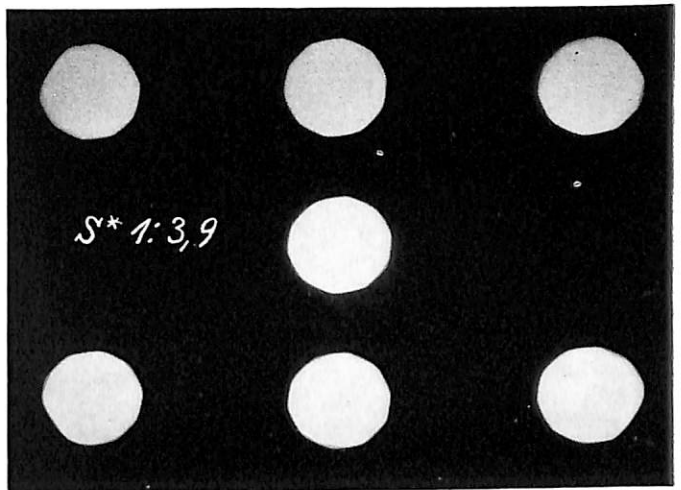


Fig. 6c

the image field, in the centres of the broad sides of the image field and in the corners of it. Behind this plate and on the side away from the objective is placed either a ground glass screen or a sensitive photographic material on which can be seen or recorded, as in a pinhole camera, the effective entrance pupil serving each of the drilled holes over the whole image area. By measuring the images it is an easy matter to establish the relation in which they stand to the size of the entrance pupil recorded in the optical centre of the image field. If the measuring instrument has been calibrated it can be used to determine the maximum opening of the objective. Using this method a series of photographs were taken which compare the aperture of a lens of standard construction with that of the Summitar, in the development of which particular attention was paid to the problem of restricting vignetting to a minimum. These photographs are reproduced in figs. 5 & 6, series b, and c. In these series, vignetting is measured and compared at full rated aperture 1:2. The results were:

| | Standard lens of normal construction | Summitar |
|---------|---|----------|
| Centre | 1.00 | 1.00 |
| Zone | 0.43 | 0.57 |
| Corners | 0.19 | 0.33 |

The different sizes of the images cast by the standard lens in the centre of its field shows that it falls short of its maximum reputed aperture 1:2, but this defect, which indicates vignetting, has been ignored in giving the lens its rated speed. In series b both lenses were stopped down until the sizes of the entrance pupils recorded in the centre of the field and in the centre of the broad sides were of exactly equal dimensions in each case. In series c the lenses were further stopped down until the size recorded in the corners was the same as

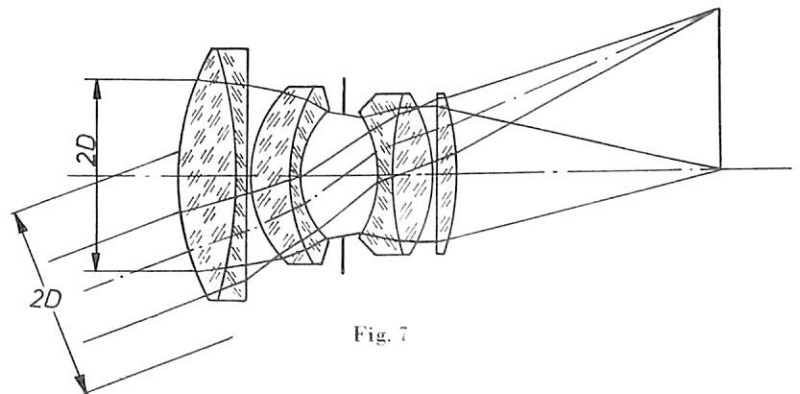


Fig. 7

the size recorded in the centre of the field. It is at once apparent that in the Summitar all vignetting disappears with the lens stopped down to $f/3.9$ whereas the standard lens with which it is compared must be stopped down further to $f/5.6$ before the same result is achieved. Moreover, in the standard lens there is considerable flare—reflections from the interior of the lens mount—which cause fog over the whole image area.

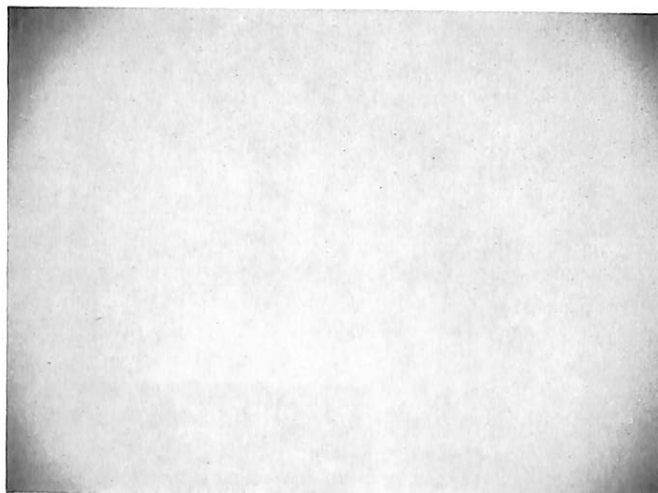


Fig. 8a

How has it been possible to achieve such results with the Summitar? The way it is done is shown diagrammatically in fig. 7 where the bundles of rays depicted are exactly similar to those shown in figs. 1 & 2. The diameters of the first and last components have been made larger than would have been necessary to accept and transmit the cross-section of a bundle of paraxial rays passing through the system. Image brilliance in the centre of the field is not affected because the determining factor here is the size of the aperture stop; but image brilliance in the corners of the field is not nearly as much reduced as was formerly the case.

Let us now consider why the reduction of vignetting is such an important factor in modern photography. In the days of black and white photography vignetting did not matter so much. The latitude of sensitive materials was so great that the reduction in image brilliance in the corners of the field was not so apparent. It was also customary to work with small stops which, of course, eliminated the defect. Under-exposed negatives at full aperture did, however, betray the effects of vignetting, especially so in the case of wide-angle lenses. In figs. 8a and 8b are shown photographs of an evenly illuminated surface of uniform structure taken at full aperture—8a with the Summitar and 8b with the same lens with which it is compared above. Conditions of exposure and development were kept constant. The fall-

ing off of image brilliance from the centre towards the edges is obvious and demonstrates the advantages of restricted vignetting.

It is of very special importance that only those lenses in which vignetting has been reduced to a minimum should be used for color photography, because color emulsions do not have the latitude to compensate for errors of exposure which are always shown up as falsi-

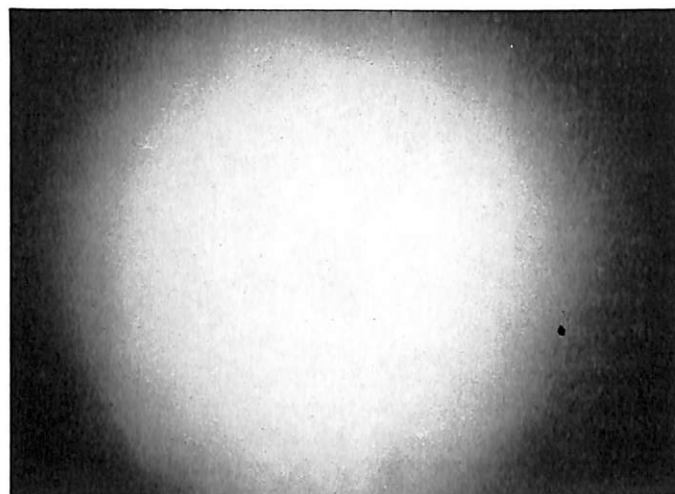


Fig. 8b

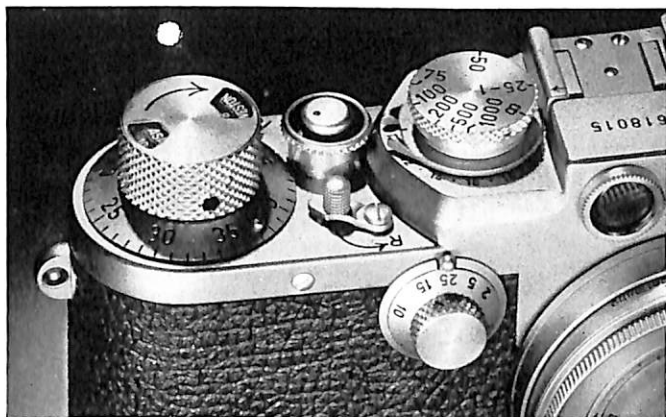
fications of color values. It is necessary to stop the lens down to ensure even image brilliance in the centre as well as at the edges of the field. But the slow speed of color film makes it a matter of considerable importance whether the lens should be stopped down to $f/5.6$ or can be used at $f/3.9$, as in the case of the Summitar. Expressed differently one might say that the Summitar, because of its repressed vignetting characteristics, has a much larger effective maximum aperture. At full aperture it is also superior but one would, in any event, always stop down somewhat in order to enjoy adequate depth of field. The maximum lens opening is a reserve that is kept up one's sleeve for photography in poor light or when there is rapid movement of the subject to prevent image blur.

But even when the entrance pupils for the corners of the image are the same size as the entrance pupil for the centre of the field image brilliance falls off towards the edges of the frame. The causes of this are purely physical and for this reason this phenomenon is known as "natural vignetting" to distinguish it from the "artificial vignetting" which has been fully discussed in this article. The physical conditions which cause natural vignetting will not be examined here if only because there is scarcely anything that can be done about it. It occurs at an acceptance angle of $22\frac{1}{2}^\circ$ and, for the Leica size using a lens of 50mm. focal length, its value is in the region of 25 per cent. ♦

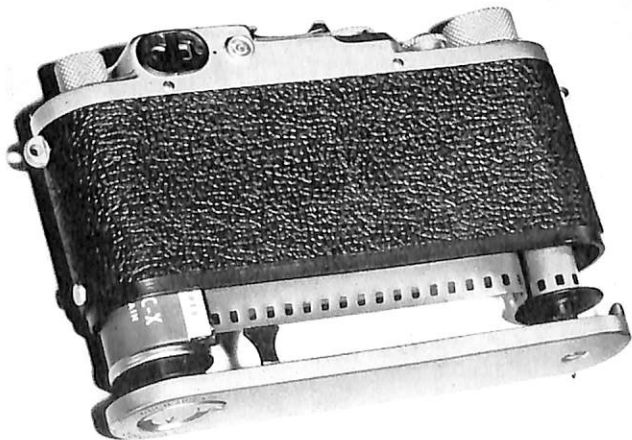
NOTES AND TIPS

NEW FEATURES ON LEICA CAMERAS... In accordance with a recommendation by the International Standards Association to standardize the shutter speeds of cameras, all current Leica models are now supplied with the following shutter speeds: slow speeds (Model IIIc only)—time, 1, 1/2, 1/5, 1/10, 1/15 second; fast speeds, 1/25, 1/50, 1/75, 1/100, 1/200, 1/500, 1/1000 second and bulb.

Leica cameras with these new shutter speeds have their synchro-scales marked in red to distinguish them from previous models. In the next column on this page we have reproduced the new flash factors issued for these new speeds. Accurate synchronization requires the use of the correct flash factor card.



On the baseplate of all recent models is a new vertical bar which has been added to keep film in position while it is being wound through the camera. Previously, there were some cases where the film was out of alignment due to the variation in cartridge tolerances. This alignment bar can be added to all Ic, IIc, IIIc, IIc, and IIIc cameras, and our Repair Department now offers this service.



NEW PRICE LIST... Starting on page 10, the latest Leica availability list is reproduced for your information. You will find many new items and some new prices on older items in this list. Some of these items are not available as yet, but we will introduce them in future issues as quickly as possible.

| Kodachrome Type A—16 ASA Tungsten | | | | | | | |
|-----------------------------------|------------|------------|-----------|-----------|-----------|---------|---------|
| SHUTTER SPEED | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 25 | 50 | 75 | 100 | 200 | 500 | 1000 |
| G.E. #31* | 70 18 | 60 12 | 50 7 | 44 4.5 | 39 2.5 | 34 1 | 31 0 |
| G.E. #6* | 60 17 | 50 13.5 | 40 7.5 | 35 5 | 30 2.5 | 25 1 | 22 0 |
| G.E. #22 | 88 16 | 78 11 | 68 6 | 58 4 | 50 2 | 43 1 | 39 0 |
| G.E. #5 | 64 14 | 46 11 | 40 6 | 37 4 | 32 2 | 29 1 | 24 0 |
| G.E. #11 | 64 15 | 48 11 | 42 6 | 38 4 | 34 2 | 30 1 | 26 0 |
| G.E. #50 | 97 15 | 80 13.5 | 76 5 | 72 | | | |
| G.E. SM | 30 0 | | | | | | |
| SYLVANIA #2A* | 76 16 | 62 14 | 49 7.5 | 45 5 | | | |
| SYLVANIA #2 | 86 16 | 71 13.5 | 61 7.5 | 56 5 | 48 2.5 | 41 1 | 37 0 |
| SYLVANIA F.P. #26* | 60 17 | 50 13.5 | 40 7.5 | 35 5 | 31 2.5 | 28 1 | 25 0 |
| SYLVANIA PRESS #40 | 62 15 | 46 10 | 40 6 | 36 4.5 | 31 2 | 28 1 | 25 0 |
| SYLVANIA #25 | 60 15.5 | 44 11 | 40 6.5 | 36 5 | 31 2.5 | | |
| SYLVANIA #0 | 60 14 | 44 10 | 40 5.5 | 36 4 | 31 2 | 28 1 | 26 0 |
| SYLVANIA S.F. | 30 0 | | | | | | |
| ZERO DELAY STROBE | 0 | | | | | | |

| Blue Photoflash Lamps for Daylight Film | | | | | | | |
|---|------------|------------|-----------|-----------|-----------|---------|---------|
| SHUTTER SPEED | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 25 | 50 | 75 | 100 | 200 | 500 | 1000 |
| G.E. #50 B | 80 16 | 68 13.5 | 58 7.5 | 52 5 | | | |
| G.E. #22 B | 75 16 | 62 11 | 52 6.5 | 44 4.5 | 36 2.5 | 29 1 | 25 0 |
| G.E. #5 B | 54 14 | 36 10 | 30 6 | 24 4 | 19 2 | 16 1 | |
| SYLVANIA #2 B | 60 16 | 45 13.5 | 35 7.5 | 29 5 | 24 2.5 | | |
| SYLVANIA #40 B | 56 15 | 43 10 | 33 6 | 28 4 | 23 2 | 19 1 | |
| SYLVANIA #25 B | 52 15.5 | 36 11 | 30 6.5 | 24 5 | 19 2.5 | | |

* Recommended for best uniform exposure.

| Plus-X (40 ASA Tungsten) | | | | | | | |
|--------------------------|-------------|-------------|------------|-----------|-----------|---------|---------|
| SHUTTER SPEED | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 25 | 50 | 75 | 100 | 200 | 500 | 1000 |
| G.E. #31* | 180 18 | 115 12 | 100 7 | 90 4.5 | 69 2.5 | 57 1 | 51 0 |
| G.E. #6* | 128 17 | 90 13.5 | 75 7.5 | 68 5 | 50 2.5 | 45 1 | 32 0 |
| G.E. #22 | 250 16 | 170 11 | 115 6 | 100 4 | 85 2 | 70 1 | 56 0 |
| G.E. #5 | 154 14 | 94 11 | 78 6 | 70 4 | 52 2 | 47 1 | 32 0 |
| G.E. #11 | 150 15 | 110 11 | 90 6 | 82 4 | 60 2 | 52 1 | 40 0 |
| G.E. #50 | 340 15 | 230 13.5 | 168 5 | | | | |
| G.E. SM | 80 0 | | | | | | |
| SYLVANIA #2A* | 185 16 | 118 14 | 105 7.5 | 92 5 | | | |
| SYLVANIA #2 | 248 16 | 168 13.5 | 113 7.5 | 98 5 | 83 2.5 | 68 1 | 54 0 |
| SYLVANIA F.P. #26* | 128 17 | 90 13.5 | 75 7.5 | 68 5 | 50 2.5 | 45 1 | |
| SYLVANIA PRESS #40 | 154 15 | 115 10 | 95 6 | 83 4.5 | 64 2 | 50 1 | 45 0 |
| SYLVANIA #25 | 150 15.5 | 90 11 | 75 6.5 | 68 5 | 49 2.5 | | |
| SYLVANIA #0 | 150 14 | 90 10 | 75 5.5 | 68 4 | 49 2 | 40 1 | 30 0 |
| SYLVANIA S.F. | 80 0 | | | | | | |
| ZERO DELAY STROBE | 0 | | | | | | |

* Recommended for best uniform exposure.

LEICA CAMERAS WITH RED SYNCHRO-DIAL NUMERALS

1. Slanted numbers are for synchro-dial. Straight numbers indicate flash factors based on Leica shutter. For exposures with blue bulbs outdoors for fill-in light, refer to exposure meter for lens aperture but if distance is under 10 feet decrease 1/2 stop.
2. To obtain f/stop from these tables, divide flash factor by distance from object to camera.
3. For other film rating: 20—Open one stop; 80—Close one stop from aperture determined in (2) above.
4. Refer to G.E. flash factors for all Westinghouse flash bulbs.

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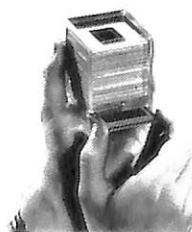
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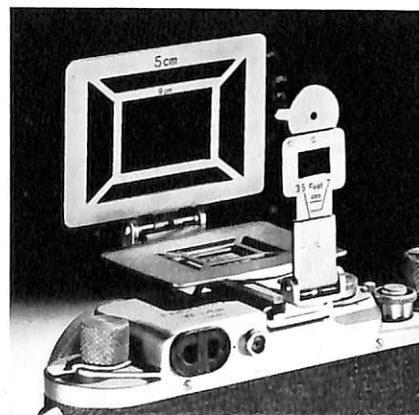
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FRAME FINDER (code word ROSOL, catalog No. 12,040, priced at \$11.10)—a new version of an old favorite is the Frame Viewfinder for 50mm., 85mm., 90mm., and 135mm. lenses with parallax adjustment and interchangeable frames. This finder slips conveniently in the Leica accessory clip and, as shown in the photograph, is engraved with the lens size on a frame around the area covered by that particular lens. The second frame is raised into position for the other lenses. The square peep sight on the rear elevation is for the 50mm., 85mm., and 90mm. lenses, and the round one is swung down into position for the 135mm. lens.

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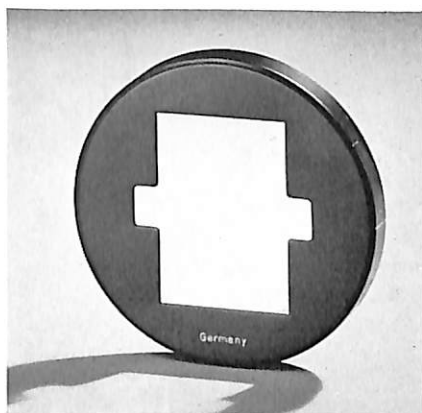
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Wendy Hilty, New York, N. Y.
- (2) **None Too Young**
Wendy Hilty, New York, N. Y.
- (3) **Wide Angle Creation**
Wendy Hilty, New York, N. Y.
- (4) **Top O' Big Bromley**
John V. Convente, Massapequa, N. Y.
- (5) **Skier's Paradise**
John V. Convente, Massapequa, N. Y.
- (6) **Outdoor Disorder**
Robert F. Venegas, Chicago, Ill.
- (7) **Immaculate**
Chester J. Conn, Bellport, N.Y.
- (8) **Ski Pole Abstract**
Wendy Hilty, New York, N. Y.

MARKETS FOR PICTURES ... Industrial Photography, 1114 First Avenue, New York 21, N. Y., a new quarterly specializing in black-and-white photographs of all industrial applications. Also, Jensen-Salsbery Laboratories, Inc., 21st and Penn Streets, Kansas City 10, Missouri, attention of Miss Leila Johnson. 8x10 black-and-white photos with a veterinary slant, on animal interest shots, livestock, and other veterinary activities including surgery: \$10.00 to \$25.00 per print.



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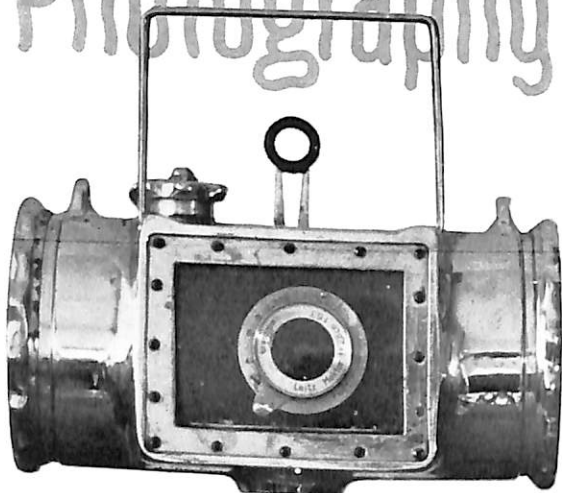
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PHOTO ODDITY ... Mr. Philip P. Masterson of Lewisboro, New York, in taking a record shot of a church, came up with a photo oddity which we have enlarged somewhat and hope that you will be able to locate it.

doma.
which resembles the head of a Ma-
left of the steeple is a curved branch
In the center of the picture to the
If you have photo data of this
kind, please send it in to the maga-
zine.



Underwater Photography



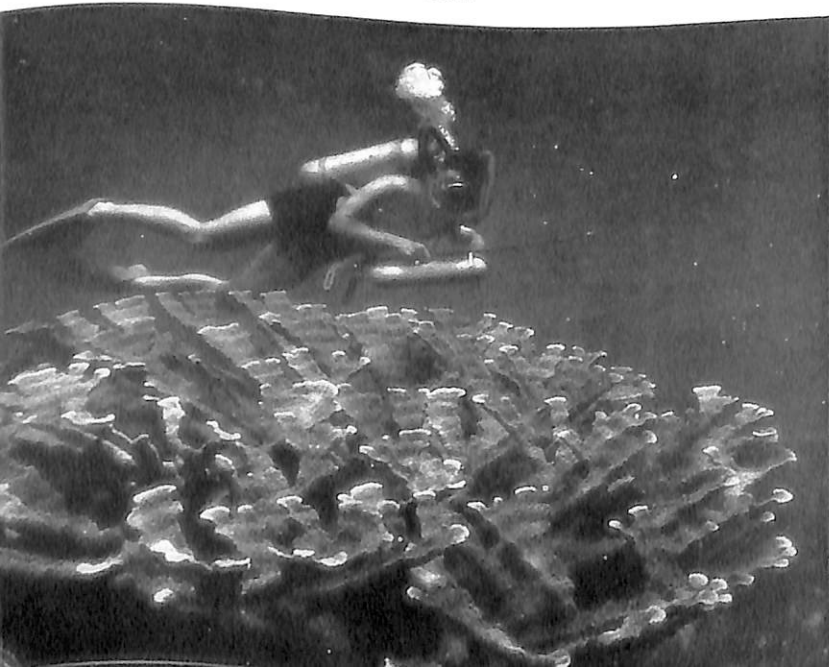
by **JERRY GREENBERG**, Los Angeles, Calif.
as told to **WALTER MACHOS**
Photographs by **JERRY GREENBERG**

For photographers who despair finding new scenes to shoot or have trouble thinking up new angles for old subjects, the virtually unexplored field of underwater photography awaits their exploration.

With America's frontiers vanishing, scientists and adventurers are turning their efforts to probe the hidden natural resources and mysteries of the area that comprises three-quarters of the earth's surface. So far their investigations have caused only a ripple.

The fast-growing sport of underwater photography may prove to be one way of unlocking the mysteries of

Gas gun and spear ready, this oxygen-equipped diver floats over an interesting coral formation.



A rubber diving mask and a pair of rubber fins help put you in the Fish League.

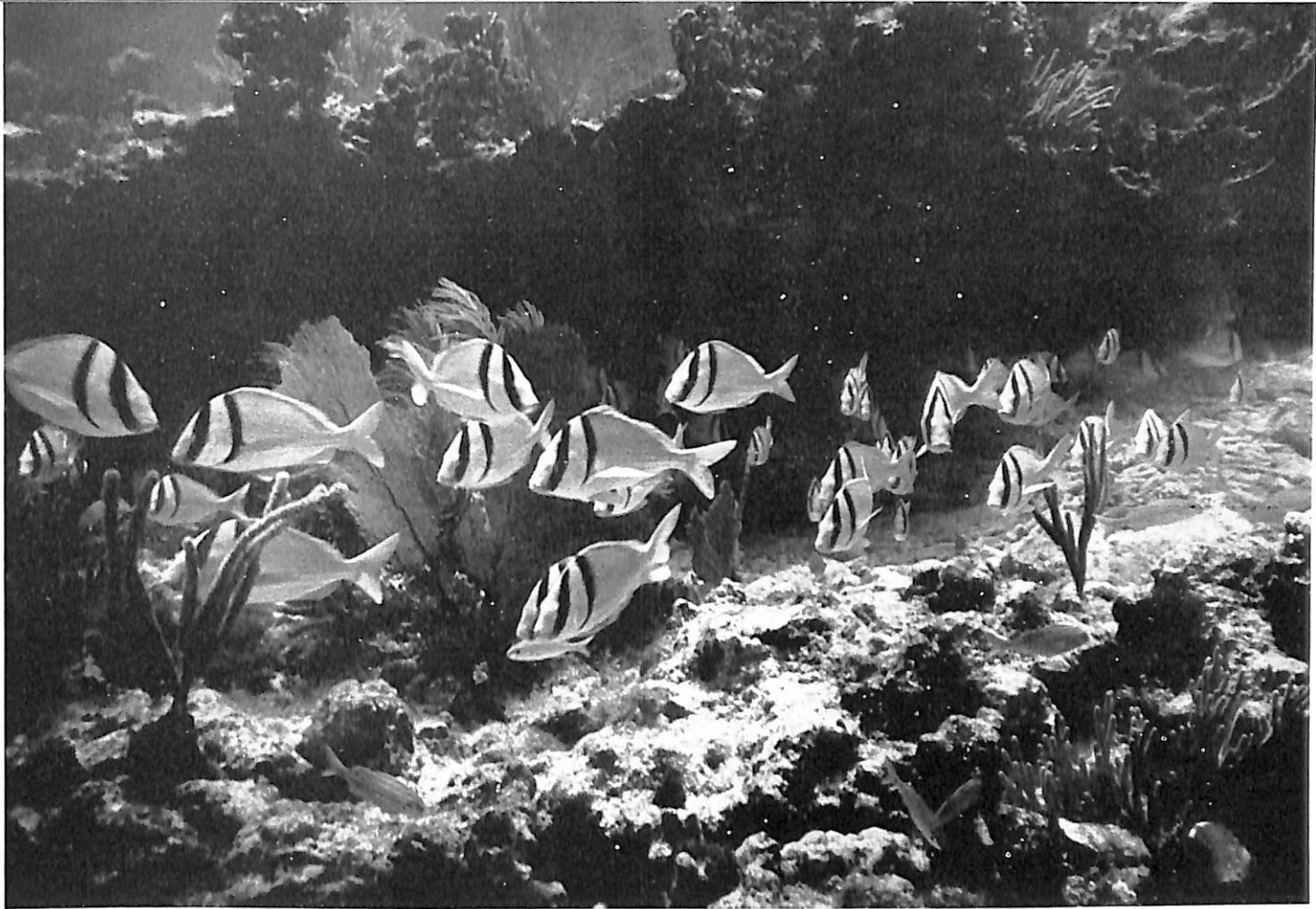
the sea, and, at the same time, provide genuine pleasure and adventure for the cameraman.

Most of us have little or no knowledge of what lies beneath the water in which we swim, boat or fish. Frankly, when I made my first attempt to explore the depth of the waters—off Key Largo, Florida—I was afraid. But my fear soon disappeared, and, instead, changed to fascination for the beauty and majesty of underwater scenery.

My enthusiasm for underwater photography began quite by accident. About two years ago, two school friends talked me into joining them in spear-fishing off the Florida keys. I tagged along out of pure curiosity. Working out of a skiff five miles off shore, I watched them dive underwater—armed with a spear-gun and wearing a head mask and rubber fins—and come up with fish ranging from a 30 pound grouper to a 300 pound jewfish.

I had a Leica Ic which I had been using for three years; but how to get the camera underwater to take pictures had me stumped. Scouting around several camera stores, I managed to dig up information about Bill Salmi, the underwater camera expert of Santa Monica, California. I contacted Salmi about my plans, sent him my Leica to insure an accurate fit on the track inside the case, and three weeks later the case arrived. It cost \$155.00.

The case I received, and which I now use, is a bronze casting and weighs eleven pounds without the camera. It is $7\frac{3}{4}$ " long and $4\frac{1}{8}$ " in diameter. The window measures $3\frac{1}{4}$ " x $2\frac{1}{4}$ ". The case is designed to withstand



The Hektor 28mm. lens' great depth of field takes in all-important subject matter. Second chances are rare.

water pressure at a depth of 175 feet. Both ends of the case can be opened by unscrewing the lids. The case has two outside controls: (1) A winder that meshes with a special gear cap on the camera's winding knob. (2) A shutter release connected to the camera by a lever. Other attachments include a wire frame finder and a press camera peep sight. The case has no exterior focusing mechanism.

Before the Leica is put into the case, a bronze shoe is fastened to the camera's bottom plate with a set-screw, and then slides into the case on a track.

With no outside focusing mechanism on the case, prefocusing is necessary before diving underwater. From my experience, I found the average underwater visibility off the coast of south Florida to be about 35 feet at a depth of about 25 feet. This meant I needed a lens that could give me the greatest depth of field and at the same time insure the widest possible angle. The 28mm. Hektor lens really did the trick for both of these requirements. This lens is the widest made by Leitz for the Leica and encompasses an angle of 76 degrees.

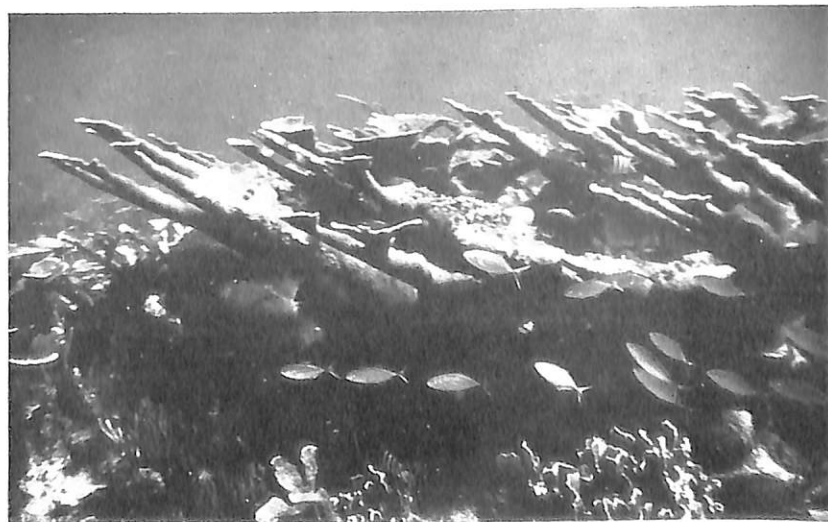
For diving equipment I would advise using a pair of rubber fins attached to your feet, and a rubber diving mask with a circular glass which covers your eyes and nose. The fins are a great help for quick maneuvering underwater, thus giving you greater freedom to operate the camera. The rubber mask gives you a clear view for shooting. Both can be bought in sporting goods stores.

The first time I shot underwater photographs, after getting my Salmi case, I put a meter in a water-tight jar and got an exposure which enabled me to shoot at

1/60 at f/9. Using this aperture, I prefocused the lens at 6 feet and got a depth of field from 3 feet 9 inches to 30 feet. Although I got a highly detailed negative with this reading, there was some density on the upper part of the negative where the surface light was the strongest. I corrected this by using a light yellow filter which eliminated most of the glare. This resulted in a satisfactory negative without the harsh highlights. I used Kodak Plus-X film which I force-developed in Finex for 25 minutes, instead of the normal 15.

Continued on page 36

Underwater scenery is beautiful and majestic.



WHERE TO GO...FOR LEICA SUPPLIES AND SERVICE

This Directory contains a partial list of LEICA Franchised Dealers.

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Berkeley

1673 Chester Avenue
THE CAMERA SHOP

Beverly Hills

2011 Shattuck Avenue
AREMAC CAMERA EXCHANGE
9443 Wilshire Boulevard
BEVERLY HILLS CAMERA SHOP

Burbank

417 North Beverly Drive

Chico

BURBANK CAMERA CENTER

El Centro

404 N. San Fernando Boulevard

Eureka

STAPLES FOTO SHOP

210 Broadway

CLEMENTS DRUG STORE

593 Main Street

PHOTO SPECIALTY SHOP

511 F Street

PROCTOR'S PHOTOGRAPHIC ENG. CENTER

2940 F Street

Glendale

GLENDAL'S CAMERA CENTER

Hayward

412 North Brand Boulevard

Hollywood

BOWMAN'S CAMERA STORE

1082 "B" Street

MORGAN CAMERA SHOP

6262 Sunset Boulevard

STANDARD CAMERA SUPPLY CO.

7901 Santa Monica Boulevard

Huntington Park

PARK CAMERA INC.

6041 Pacific Blvd.

Lodi

CRETES' CAMERA CENTER

Long Beach

25 So. School Street

CITY PHOTO SERVICE

1719 East Anaheim Street

TUTTLE PHOTO SERVICE

4019 Atlantic Avenue

Los Angeles

BEVERLY HILLS CAMERA SHOP

417 North Beverly Drive

CAMPUS CAMERA SHOP

1083 Bronston Ave., Westwood Village

IWATA PHOTOGRAPHIC SUPPLY

333 East 1st Street

MARSHUTZ OPTICAL CO.

418 West 6th Street

MONARCH PHOTO CO., INC.

1800 W. Pico Boulevard

SPINDLER & SAUPPE

2201 Beverly Boulevard

STEWART PHOTO COMPANY

1036 1/2 Braxton Avenue, Westwood Village

STUDIO CITY CAMERA EXCHANGE

12236 Ventura Boulevard

WESTLAKE CAMERA STORES, INC.

635 South Olive Street

WINTER & CO.

525-7 West Sixth Street

Merced

VALLEY DRUG COMPANY

Monterey

560 Seventeenth Street

JOHN McKAY & SONS

Oakland

470 Alvarado Street

CAMERA CORNER

431 13th Street

DAVIDSON & LIGHT

1635 Broadway

OAKLAND CAMERA EXCHANGE

376 Fourteenth Street

Pacific Grove

THE CAMERA EXCHANGE

Palo Alto

549 Lighthouse Avenue

WEBBS PHOTO SUPPLY STORE

Pasadena

479 University Avenue

ALVIN'S PHOTO SUPPLY

914 East California Street

BISCHOP'S

1723 East Colorado Street

CONNELL'S CAMERA SHOP

2494 East Colorado Street

F. W. REED COMPANY

176 East Colorado Street

Redlands

REDLAND'S CAMERA SHOP

Sacramento

217 Orange Street

JOHN PARDEE PHOTO SUPPLIES

2417 Marconi Avenue

"Town & Country Village"

WEBBS PHOTO SUPPLY STORE

1011 Eighth Street

WEBBS PHOTO SUPPLY STORE

347 Main Street

ROY DAVIS' CAMERA SHOP

415 Third Street

BUNNELL PHOTO SHOP

1033 Sixth Avenue

San Francisco

ELLIOTTS PHOTO SUPPLY
3060 University Avenue
ALLEN'S PHOTO SUPPLY CO.
238 Market Street
ALFRED BASS, INC.
585 Market Street
MONROE J. BELLING
1126 Market Street
BROOKS CAMERAS
45 Kearny Street
BILL GOLDFINGER
70 Post Street
SCHAEFER'S CAMERA SHOP
137 Kearny Street
CAMERA SHOP
245 South First Street
WEBBS PHOTO SUPPLY STORE
66 South First Street
GARNER'S CAMERA CENTER
1201 Washington Avenue
EBY PHOTO SERVICE
107 West Third Street
STILLEY'S PHOTO SUPPLIES
224 N. Broadway
BOULEVARD CAMERA SHOP
1201 Wilshire Boulevard
CARLSON'S PHOTO SUPPLY
202 Santa Monica Boulevard
STEWART PHOTO COMPANY
1257 Third Street
LEE'S PHOTO SUPPLY
146 E. Philadelphia Street

San Jose

San Leandro

Santa Ana

Santa Monica

Whittier

COLORADO

Colorado Springs

DEITS BROS.
119 E. Pikes Peak Avenue
HAANSTAD'S
404-408 16th Street
SQUARE DEAL CAMERA SHOP
1539 South Broadway
UNIQUE PHOTO CO.
301-16th Street

Denver

CONNECTICUT

Hartford

MERRILL'S CAMERA EXCHANGE

New Haven

182 Pearl Street

South Norwalk

DAVENPORT PHOTO SHOP

Stamford

1182 Chapel Street

HILGERT & GOUGH

42 1/2 South Main Street

LEON DERAN

32 Park Row

DELAWARE

Wilmington

WILMINGTON CAMERA SHOP, INC.

412 Delaware Avenue

DISTRICT OF COLUMBIA

Washington

BRENNER PHOTO COMPANY
933 Pennsylvania Avenue, N.W.
CAPITAL CAMERA EXCHANGE, INC.
1003 Pennsylvania Avenue, N.W.
EMBASSY CAMERA CENTER
2010 S. Street, N.W.
(S-at Connecticut Avenue)
FULLER & d'ALBERT INC.
815 Tenth Street, N.W.
MICRO-MART CAMERA CENTER
412-10th Street, N.W.
ARTHUR ALLEN GOLDSTEIN
POTOMAC PHOTO SUPPLY, INC.
1734 Pennsylvania Avenue, N.W.
RITZ CAMERA CENTERS
618 Twelfth Street, N.W.
MARK WEISS CAMERA EXCHANGE
913 Pennsylvania Avenue, N.W.

FLORIDA

Fort Lauderdale

HOBBY HOUSE CAMERA SHOP

Miami Beach

33 S.E. 2nd Street

Orlando

ENFIELD'S

Palm Beach

409 Lincoln Road

Riviera Beach

BOWSTEAD'S CAMERA SHOP

1039 N. Orange Avenue

MILLER & WALLACE

220 Sunrise Avenue

KNIGHT'S PHARMACY

2407 Broadway

P.O. Box 765

STRAND CAMERA SHOP

9 Second Street North

St. Petersburg

GEORGIA

Atlanta

FRYE'S PHOTO SHOP

Valdosta

259 Peachtree Street, N.E.

CASTLEBERRY CO.

IDAHO

Boise

IDAHO CAMERA

Lewiston

806 Main Street

Moscow

WES' FOTOSHOP

Payette

710 Main Street

Twin Falls

KYLE'S PHOTO SUPPLY

414 South Main Street

COLPIN PHOTO FINISHING

721-725 Center Avenue

CORONET CAMERA CENTER

115 Main Avenue West

THESE ARE PAID ADVERTISEMENTS

WHERE TO GO...FOR LEICA SUPPLIES AND SERVICE

ILLINOIS

Bloomington
Blue Island
Chicago

HAWKINS STUDIO AND CAMERA SHOP
214 W. Washington Street
WATLAND BROTHERS
13039 S. Western Avenue
AUSTIN CAMERA COMPANY
6021 North Avenue, Oak Park
BASS CAMERA CO.
179 W. Madison Street
BEL-PARK PHOTO
4757 Belmont Avenue
CENTRAL CAMERA CO.
230 South Wabash Avenue
ENGLEWOOD CAMERA SHOP, INC.
6544 So. Halstead Street
THE GENERAL CAMERA SHOP, INC.
6424 N. Western Avenue
THE GENERAL CAMERA COMPANY
Main Floor, Merchandise Mart
HERMAN CAMERAS, INC.
6 South La Salle Street
JACKSON CAMERA, INC.
84-86 East Jackson Boulevard
MODEL CAMERA SHOP
1331 East 55th Street
NORMAN-WILLETS CAMERA STORES
316 W. Washington Street
POWELL'S CAMERA MART, INC.
151 West Randolph Street
SE KAPS CAMERA MART
3946 North Cicero Avenue
SHUTAN CAMERA COMPANY
153 West Washington Street
SOUTH SHORE CAMERA EXCHANGE
1931 East 71st Street
WELLS-SMITH CAMERA CO.
15 East Washington Street
WOLK CAMERA CO.
119 South Dearborn Street
WATLAND BROTHERS
1702 Halsted Street
GREENWOOD CAMERA SHOP
148 N. Vermilion Street
PFILES CAMERA SHOP
100 E. Prairie Street
BILL'S CAMERA SHOP
1408 State Street
ELMHURST CAMERA
115 Addison Avenue
CARLSON-JENSEN CAMERA SHOP
814 Church Street
ILLINOIS CAMERA SHOP
84 S. Prairie Street—Weinberg Arcade
THE CAMERA SHOP
202 E. Court Street
THE GENERAL CAMERA CO.
31 West Van Buren
WATLAND BROTHERS
278 East Court Street
SUBURBAN CAMERA SHOP
104 West Burlington Avenue
HOLIDAY CAMERA SHOP
709 S. Fifth Street
AUSTIN CAMERA CO.
6021 West North Avenue
PEORIA CAMERA SHOP
539 Main Street
REX STUDIO AND CAMERA SHOP
329 S. Adams Street
RIVER FOREST CAMERA SHOP
7243 West Lake Street
LUNDGREN'S CAMERA SHOP
419 Seventh Street
DON N. WRIGHT PHOTO SUPPLIES
1605 Second Avenue
PFILES CAMERA SHOP
403 E. Washington Street
HART CAMERA SHOP
10 E. Fourth Street
WEST SIDE CAMERA SHOP
1418 Washington Street

Chicago Heights
Danville
Decatur
East St. Louis
Elmhurst
Evanston
Galesburg
Jacksonville
Joliet
Kankakee
La Grange
Maywood
Oak Park
Peoria

River Forest
Rockford
Rock Island
Springfield
Sterling
Waukegan

INDIANA

Evansville
Gary
Hammond
Indianapolis
Marion
Mishawaka
Muncie
South Bend

WALDEN, INC.
17 S.E. Third Street
GARY CAMERA CO., INC.
619 Washington Street
DAVE'S CAMERA MART
214 Russell
CAM-ART, INC.
801 Broad Ripple Avenue
HOOSIER PHOTO SUPPLIES, INC.
51 Monument Circle
H. LIEBER CO., INC.
24 W. Washington
MEYER'S
114 East Fourth
DILL PHOTO SERVICE
119 South Main Street
MUNCIE CAMERA SHOP, INC.
105 S. Walnut Street
AULT CAMERA SHOP, INC.
122 S. Main Street
GENE'S PHOTO SHOP
515 Lincoln Way West
SCHILLING'S
329 South Lafayette Blvd.

IOWA

Ames
Davenport
Fort Dodge
Mason City

KANSAS

Fort Scott
Lawrence
Manhattan
Wichita

KENTUCKY

Glasgow
Louisville

LOUISIANA

New Orleans

MAINE

Lewiston
Portland

MARYLAND

Baltimore

MASSACHUSETTS

Boston

Cambridge

Falmouth

Holyoke

Lowell

Lynn

New Bedford

Newtonville

Pittsfield

Quincy

Salem

Springfield

Worcester

MICHIGAN

Ann Arbor
Battle Creek
Dearborn
Detroit

AMES STATIONERS
238 Main Street
CINARCO CAMERA CO., INC.
312 Main Street
BERGEMAN PHOTOS
1017 Central Avenue
DECKER BROTHERS
209 Federal Avenue

COWEN'S
112 So. Main Street
MOSSER-WOLF, INC.
1107 Massachusetts Street
MANHATTAN CAMERA SHOP
311 1/2 Poyntz
JEFF'S CAMERA SHOP
120 North Market Street
LAWRENCE CAMERA SHOP, INC.
149 No. Broadway also Blvd. Plaza

GEO. J. ELLIS DRUG CO., INC.
144 South Green Street
W. D. GACHEL & SONS, INC.
670 So. Fourth Street

BENNETT'S PHOTO
320-322 Baronne Street
FOX CAMERA STORES
218 Baronne Street

BERRY PAPER CO.
49 Lisbon Street
BICKNELL PHOTO SERVICE
14 Preble Street & Chapman Arcade

CAMERA MART
5421 Harford Road
PARKVILLE PHOTO SUPPLIES, INC.
7730 Harford Road
RITZ CAMERA CENTERS
26 West Lexington Street
STARK-FILMS
537 No. Howard Street
ZEPP PHOTO SUPPLY CO., INC.
3042 Greenmount Avenue

BAB'S PHOTO REPAIR SERVICE
110 Tremont Street
CLAUS GELOTTE, INC.
284 Bolyston Street
RALPH HARRIS CO.
47 Bromfield Street
KIMBALL CAMERA STORES
20 Tremont Street and 74 Federal Street
PARK SQUARE BLDG., CAMERA & PHOTO
Arcade 18-19, Park Square Building
SMITH'S PHOTOGRAPHIC STORE
273 Massachusetts Avenue
CLAUS GELOTTE, INC.
Harvard Square
DERBY JEWELER, INC.
Harvard Square
FALMOUTH PHOTO SUPPLY
245 Main Street
D'ADDARIO'S CAMERA SHOP
260 Maple Street
BUDDY'S CAMERA SHOP
50 Middle Street
MASSACHUSETTS MOTION PICTURES SERV., INC.
35 Market Street
McGEES PHOTO SUPPLY
1446 Acushnet Avenue
JOHN VAICH CAMERA SHOP
801 Washington Street
THE PHOTO SHOP
81 East Street
CAMERA SHOP, INC.
1241 Hancock Street
CLAUS GELOTTE, INC.
1387 Hancock Street
WELCH'S CAMERA CENTER
680 Hancock Street
CAMERACRAFT SHOP, INC.
22 Central Avenue
BLOOM'S PHOTO SUPPLY, INC.
1657 Main Street
UNITED LUGGAGE & CAMERA INC.
1688 Main Street, Opp. Lyman Street
VALLEY CINEMA
948 State Street
LIVINGSTON PHOTO CENTER
220 Main Street

CALKINS-FLETCHER
Main Office: 324 So. State Street
KRUMS PHOTOGRAPHIC
66-68 E. Michigan Avenue
PHOTO-LUX CAMERA SHOP
22146 Michigan Avenue
DETROIT CAMERA SHOP
325 State Street
THE GUILD CAMERA SHOP
13327 Harper Avenue

THESE ARE PAID ADVERTISEMENTS

WHERE TO GO...FOR LEICA SUPPLIES AND SERVICE

MICHIGAN (Continued)

Grand Rapids
LOBBY-HOBBY CAMERA SHOP
 17300 Woodward Avenue
THE POINTE CAMERA SHOP
 16357 East Warren Avenue
THE SILHOUETTE CAMERA SHOP
 11862 Grand River Avenue
CAMERA CENTER
 42 N. Division Avenue, N.W.
FUSON'S CAMERA SHOP
 165 Ottawa Avenue, N.W.
THE CAMERA CENTER
 17114 Kercheval Avenue
MAX'S JEWELRY CO.
 10,000 Jos. Campau Avenue
THE WILCOX STUDIO
 614 Sheldon Street
PHOTOCENTER
 Hotel Hayes Building
 226 W. Michigan Avenue
Kalamazoo
CRESCENT STUDIOS CAMERA SHOP
 334 West Michigan Avenue
Lansing
VAN'S PHOTO SERVICE
 524 East Michigan
Royal Oak
HY-WILDE CAMERA SHOP
 1029 Washington at Harrison

MINNESOTA

Duluth
NELSON PHOTO
 2026 West Superior Street
Mankato
SCHMIDT'S PHOTOGRAPHIC SUPPLIES
 226 South Front
Minneapolis
JAY'S CAMERAS
 18 South Fifth Street
NATIONAL CAMERA EXCHANGE
 86 South Sixth Street
NORTHERN PHOTO SUPPLY CORP.
 521 Second Avenue, South
HEATHERCRAFT
 4 North Minnesota Street
Owatonna
MASTER-CRAFT CAMERA SHOP
 214 East Broadway
St. Paul
FISHER PHOTOGRAPHIC SUPPLY CO.
 381-3 Minnesota Street
Waysata
FULTON PHOTO
 Navarre Station

MISSOURI

Kansas City
BARNARD'S COUNTRY CLUB PLAZA
 4724 Broadway
CRICK'S CAMERA SHOP
 6316 Brookside Plaza
Springfield
THE OZARKS CAMERA SHOP, INC.
 305 South Avenue
St. Louis
CAMERA EXCHANGE
 2650 Park Avenue
JEFFERSON CAMERA SHOP
 1915 South Jefferson Avenue
STANLEY PHOTO SERVICE
 106 N. Broadway
St. Louis County
HARPER'S PHOTOGRAPHIC SUPPLIES
 2818 Sutton Avenue, Maplewood

MONTANA

Billings
KASPER'S PHOTO SHOP
 107 North 29th Street
Bozeman
SULLIVAN PHOTO
 107 E. Main

NEBRASKA

Beatrice
ROSZELL'S
 Roszell Bldg.
 115 North 5th Street
Lincoln
THE CAMERA STORE (NEPHO)
 1122 N. Street
Omaha
CALANDRA CAMERA CO., INC.
 N.W. Corner 15th at Douglas Street
J. G. KRETSCHMER & CO.
 315 S. 17th Street
Omaha (South)
CALANDRA CAMERA CO., INC.
 S.W. Corner 24th at "N" Street
Omaha (West)
CALANDRA CAMERA CO., INC.
 N.W. Corner 42nd and Dodge

NEW HAMPSHIRE

Manchester
THE CAMERA SHOP
 1168 Elm Street

NEW JERSEY

Bergenfield
PETERS CAMERA SHOP
 63 South Washington Avenue
Bridgeton
J. T. ROBERTS PHOTOGRAPHIC SUPPLIES
 449 451 N. Pearl Street
Englewood
HERBERT'S CAMERA HOUSE, INC.
 9 East Palisade Avenue
Irvington
KRAFTE CAMERA CO.
 1100 Clinton Avenue
Trenton
SOLBERG'S PHOTO SUPPLY
 833 South Broad Street
West New York
LEVY'S INC.
 Bergenline at 62 Street

NEW MEXICO

Albuquerque
H. GENE AUTRY'S CAMERA SHOP
 211 1/2 W. Central Avenue
KURT'S CAMERA CORRAL
 3417 E. Central Avenue
Santa Fe
H. GENE AUTRY'S CAMERA SHOP
 109 San Francisco Street

NEW YORK

Albany
BERNS CAMERA STORE
 52 State Street
CAMERA EXCHANGE, INC.
 116 State Street
Auburn
SEAL'S CAMERA STORE
 11 North Street
Brooklyn
BEDFORD CAMERA
 1285 Bedford Avenue
BORO HALL CAMERA SHOP
 163 Joralemon Street (near Court Street)
POTTER'S HARMAS STORES
 708 Flatbush Avenue
J. F. ADAMS CO., INC.
 529 Main Street
BUFFALO PHOTO MATERIAL CO.
 37 Niagara Street
LAFAYETTE CAMERA STORES
 12 Broadway
RECH PHOTO SERVICE
 2540 Bailey Avenue
HANS UNFRIED PHOTO SUPPLIES
 3104-06 Main Street
UNITED PROJECTOR & FILM CORP.
 228 Franklin Street
Cortland
CORTLAND CAMERA SHOP
 133 Main Street
Elmira
BOVIK & CRANDALL, INC.
 263 State Street
Flushing
QUEENS CAMERA HOSPITAL, INC.
 40-46 Main Street
Freeport
GROVES PHOTO SUPPLY & SERVICE, INC.
 81 West Merrick Road
Fulton
FULTON CAMERA SHOP, INC.
 120 Cayuga Street
Hempstead
EASTERN CAMERA EXCHANGE
 66 West Columbia Street (opposite L.I.R.R. station)
MORAT SERVICE, INC.
 30 East 21st Street
Jamaica
RAINBOW CAMERA STORES, INC.
 160-10 Hillside Avenue
Kenmore
NIXON CAMERA & SUPPLY CO.
 3160 Delaware Avenue
Lockport
JAY'S CAMERA SHOP
 38 Main Street
Manhasset
ARROW PHOTO SHOP
 458 Plandome Road
Middletown
FOTOMART
 100 North Street
Newburgh
SEAMAN'S
 384 Broadway
New York
ALLIANCE PHOTO SUPPLY
 115 Worth Street
BROADWAY CAMERA EXCHANGE
 2130 Broadway at 75th Street
THE CAMERA HOUSE
 728 Lexington Avenue
CITY CAMERA EXCHANGE, INC.
 11 John Street
COLUMBUS PHOTO SUPPLY CORP.
 1949 Broadway at 66th Street
DOWLING'S FIFTH AVENUE
 175 Fifth Avenue
E. B. MEYROWITZ, INC.
 520 Fifth Avenue and 730 Fifth Avenue
FOREMOST CAMERA STORES, INC.
 19 West 44th Street (between 5th & 6th Avenues)
HABER & FINK, INC.
 12 Warren Street
MADISON MART, INC.
 403 Madison Avenue
MEDO PHOTO SUPPLY CORP.
 23 West 47th St. & 902 Broadway
MIDWAY CAMERA EXCHANGE
 1310 Sixth Avenue, Bet. 52nd & 53rd Streets
MINIATURE PHOTO LAB AND SALES CO.
 50 West 57th Street
MINIFILM CAMERA CORP.
 1190 Avenue of Americas
MITCHELL CAMERA STORES, INC.
 127 West 50th Street
OLDEN CAMERA & LENS CO.
 1265 Broadway at 32nd Street
PEERLESS CAMERA STORES, INC.
 415 Lexington Avenue
PHOTOGRAPHIC FAIR, LTD.
 "Opposite Carnegie Hall"
 167 West 57th Street
SIRKIN'S CAMERA EXCHANGE
 162 Delancy Street
TOWER PHOTO SHOP
 1109 Sixth Avenue, Bet. 42nd & 43rd Street
WILLOUGHBY'S, INC.
 110 West 32nd Street
LAFAYETTE CAMERA STORES
 217 Falls Street
OSWEGO
BARBEAU PHOTO SUPPLIES
 33 East Bridge Street
PEARL RIVER
BOUTON'S
 15 East Central Avenue
POUGHKEEPSIE
STATE STUDIO & CAMERA SHOP
 253 Main Street
ROCHESTER
SMITH-SURREY, INC.
 99 Clinton Avenue S
ROCKVILLE CENTRE
 20 N. Park Avenue
SCARSDALE
SCARSDALE CAMERA SHOP
 8 Spencer Place

THESE ARE PAID ADVERTISEMENTS

WHERE TO GO...FOR LEICA SUPPLIES AND SERVICE

NEW YORK (Continued)

Staten Island WEITZMAN'S PHOTO SHOP, INC.
Since 1872
59-61 Canal Street
Syracuse FRANCIS HENDRICKS CO., INC.
339 South Warren Street
Watertown KAMERA KRAFT STORE
SEVERANCE PHOTO, INC.
208 E. Jefferson Street
Wellsville 46 Public Square
STOLL'S
77 N. Main Street
White Plains COLORTONE CAMERA, INC.
172 Martine Avenue

NORTH CAROLINA

Chapel Hill FOISTER'S CAMERA STORE, INC.
161 East Franklin Street
Charlotte HOLLY SMITH CAMERA STORE
106 S. Church Street
Raleigh RADIO AMATEUR CENTER
411 Hillsboro Street

NORTH DAKOTA

Bismarck SERVICE DRUG CO.
414 Main Street
Devils Lake RAMSEY DRUG CO.
413 Fourth Street
Fargo EPKO FILM SERVICE, INC.
631 N. P Avenue

OHIO

Akron AKRON CAMERA CO.
171 W. Bowery Street
Cincinnati EASTMAN KODAK STORES, INC.
27 West Fourth Street
Cleveland BRYAR PHOTO SUPPLY CO.
1303-09 Prospect Avenue
CAMERA CRAFT, INC.
Shaker Square
THE DODD CO.
1025 Huron Road
Columbus REITMAN CAMERA EXCHANGE
1900 East Ninth Street
BUDD & COMPANY, INC.
30 North High Street
THE CAMERA SHOP
48 East Broad Street
CAMPUS CAMERA CENTER
1616 North High Street
Middleburg Heights THOMAS E. HUDGEONS & SON
6817 Pearl Road at W. 130 Street
Springfield CLICK CAMERA SHOP, INC.
31 West High Street
RAPID PHOTO SERVICE, INC.
45 West High Street
Toledo GROSS PHOTO MART, INC.
232-36 Huron Street
Warren HOUSE OF PORTRAITS CAMERA SHOP
1252 East Market Street
Youngstown THE STAMBAUGH-THOMPSON CO.
114-118 W. Federal Street

OKLAHOMA

Lawton HANKINS STUDIO
305 C Avenue
Oklahoma City DEE'S PHOTO SUPPLY
217 N.W. 1st
Tulsa ENGLER'S PHOTO SUPPLY
126 North Main

OREGON

Klamath Falls UNDERWOOD'S CAMERA SHOP
706 Main Street
Portland SANDY'S CAMERA SHOPS
714 S.W. Washington Street and
635 S.W. Adler Street

PENNSYLVANIA

Braddock LINCOFF'S CAMERA SHOP
719 Braddock Avenue
Chester THE PHOTO MART
7th and Edgmont Avenue
Greensburg PERFECTION PHOTO CO., INC.
222 East Pittsburgh Street
Harrisburg JAMES LETT COMPANY
225 North Second Street
Jenkintown THE PHOTO SPOT
718 West Avenue
Media ROGER RUSSELL
State & Monroe Street
Philadelphia BECK PHOTO SHOP
5740 Rising Sun Avenue
DEDAKER'S CAMERA SHOP
277 West Mt. Pleasant Ave., Mt. Airy
KLEIN AND GOODMAN, INC.
1019 Chestnut Street
KOSMIN'S CAMERA EXCHANGE
36 North Eleventh Street
MALENA COMPANY
616 Market Street
MID-CITY CAMERA EXCHANGE
1316 Walnut Street

Pittsburgh

Pottstown

Reading

RHODE ISLAND

Providence

RITZ CAMERA CENTERS

1414 Chestnut Street & Reading Terminal Arcade
ROSENFELD PHOTOGRAPHIC SUPPLIES, INC.
1304 Walnut Street
JOHN H. TAWS CO.
35 N. 11th Street
WILLIAMS, BROWN & EARLE, INC.
918 Chestnut Street
LIBERTY PHOTO SUPPLY
436 Wood Street
PENN CAMERA AND PHOTO SUPPLY
643 Smithfield Street
WOLK'S KAMERA EXCHANGE
308 Diamond Street
THE ARROW CAMERA SHOP
80 North Charlotte Street
W. F. DREHS
47 South 6th Street

METROPOLITAN PHOTO SUPPLY CO.

31-33 Aborn Street
UNITED CAMERA EXCHANGE, INC.
507 Westminster Street

SOUTH CAROLINA

Charleston

NORVELL'S CAMERA EXCHANGE
Francis Marion Hotel

SOUTH DAKOTA

Aberdeen

ARTZ STUDIO AND CAMERA SHOP
416 S. Main Street

TENNESSEE

Bristol

KELLY & GREEN

514 Cumberland Street
BLUFF CITY PHOTO SUPPLY
(ED'S CAMERA SHOP)
1279 Madison Avenue
ED'S CAMERA SHOP, INC.
616 S. Highland Street
MEMPHIS BLUE PRINT & SUPPLY CO.
119 Madison Avenue
MEMPHIS PHOTO SUPPLY CO.
124 Madison Ave. and 420 N. Cleveland
GEORGE C. DURY COMPANY
420 Union Street
MELROSE CAMERA CENTER
2608 Franklin Road

Memphis

Nashville

TEXAS

Amarillo

HERTNER'S CAMERA STORE

114 West Sixth Street
CAPITOL PHOTO SUPPLIES
2428 Guadalupe Street
MARLOW'S
1807 Main Street
THURMAN RANDLE & CO.
208 North Akard Street
CAMERA ASSOCIATES
c/o TITCHE-GOETTINGER CO.
Main & Elm & St. Paul
VILLAGE CAMERA SHOP
87 Highland Park Shopping Village
GOLDSTEIN BROS. CAMERA CENTER
1001 Main Street
HOUSTON
CARROLL CAMERA CO.
1004 Travis at McKinney
HOLT'S SPORTING GOODS
1017 Fannin Street
HERALD PHOTO
1405 College Avenue
THE CAMERA SHOP
1709 W. Seventh Street
SPOONER'S PHOTO SHOP
427 Austin Street
THE FOTO CENTER
211 East Houston Street
THE CAMERA MART
117 W. Front Street

Austin

Dallas

Fort Worth

Houston

Lubbock

Plainview

Port Arthur

San Antonio

Tyler

UTAH

Salt Lake City

ECKER'S CAMERA
270 South Main

VERMONT

Burlington

ABRAHAM'S
111 Church Street

VIRGINIA

Alexandria

HENRY'S CAMERA CENTER

421 King Street
KELLY & GREEN
514 Cumberland Street
CAMPBELL'S CAMERA CENTER, INC.
117 College Place
MASON CAMERA CO.
507 Botetourt Street
PORTSMOUTH CAMERA SHOP
1716 High Street
THALHIMER BROS., INC.

Bristol

Norfolk

Portsmouth

Richmond

WHERE TO GO...FOR LEICA SUPPLIES AND SERVICE

WASHINGTON

Richland

Seattle

Spokane

Spokane Valley

Tacoma

DENSOW'S CAMERA CENTER
1015 Wright
CLYDE'S CAMERA STORES
409 Union Street
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THESE ARE PAID ADVERTISEMENTS

UNDERWATER PHOTOGRAPHY

by Jerry Greenberg

Continued from page 31



Spear-fisherman struggles to bring 125-pound jewfish to the surface after gas-gunning it. Remora, or shark sucker, which attaches itself to turtles, jewfish and sharks, swims near the fish's tail.

From the best available information, I was told to shoot underwater pictures with the sun directly above. But my experience showed I got better results with the sun at a 15 degree angle. With the sun at this angle I was able to get a variety of lighting on my subjects; flat, side and silhouette. This technique was particularly effective when I wanted to get good modeling for my coral pictures.

When shooting pictures of spear-fishing, I would dive underwater with the spearman and stick pretty close to him. I'd swim side by side with him until he got something worth shooting. I averaged one exposure during the 30 or 40 seconds I was underwater for each dive.

Between dives, I would tread water for two or three minutes while catching my breath. When not using the camera case, I'd wrap it in a towel and put it in a shady place in the skiff. This was done to avoid the direct rays of the sun and prevent condensation inside the case.

My underwater camera case had a chrome finish when I received it. As

a precaution against barracudas and sharks, who are attracted by anything shiny or flashy in the water, I covered the case with ordinary adhesive tape. Barracudas, dubbed the "tigers of the sea," prey on smaller fish and have been known to attack men. They rarely ever give you any trouble if not molested. Occasionally, a curious black tip or hammer-head shark would swim by, but would leave if left alone.

But despite these infrequent dangers, underwater photography can widen your range of subjects. Schools of brightly colored fish, weaving in and out of grotesque coral formations and beautiful sea fans, all can be shot in the crystal clear water. It's like entering another world!

So, if you're tired of shooting pictures of how the "other half lives," underwater photography with a Leica will give you a chance to see what the other three-quarters of the world looks like. ♦

FIGHT TUBERCULOSIS
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AUXILIARY REPRODUCTION DEVICE

Continued from page 15

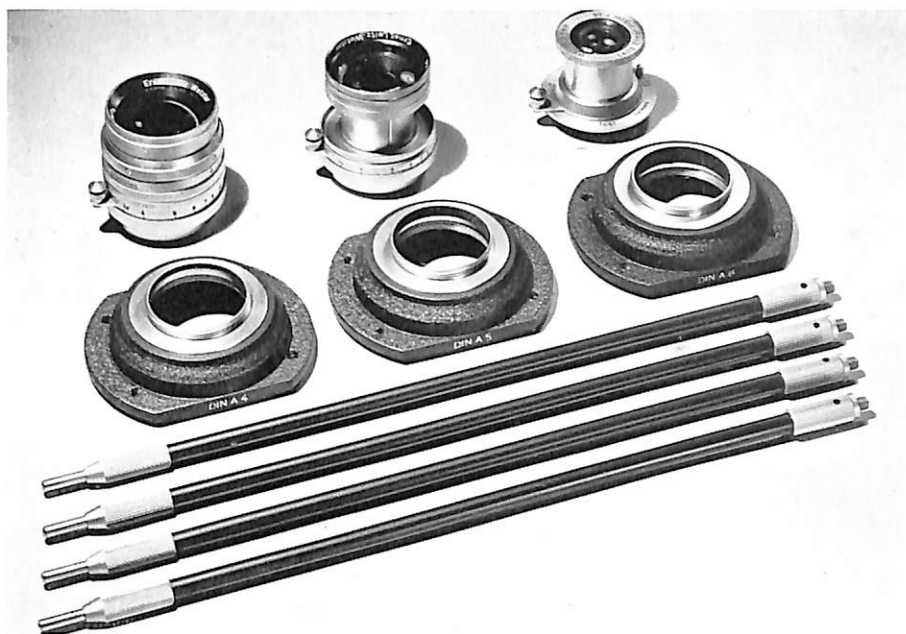
50mm. Leica lenses, to cover the area indicated.

Here's how BOOWU works — screw the desired DIN ring into the camera body gently. It automatically positions itself parallel to the film plane. After the BOOWU unit has been attached, screw the Leica lens, locked at infinity, into the DIN ring. Screw the four legs into the holes provided in the ring. They are automatically positioned at the proper angle. After the legs have been pulled out to the corresponding DIN mark, they circumscribe the area for which they are set.

With this unit, Leica filters of any type may be placed on the lens in the usual manner and, because of the BOOWU'S construction, sunshades may be used on the Elmar and Summarit 50mm. lenses. For best results, as well as depth of field, the lens should be stopped down to f/8 or f/11.

This device can easily be carried in the pocket or in a brief case and is ideal for work in libraries, scientific institutions or on field trips. These reproductions provide quick and accurate reference material and eliminate voluminous typewritten copies. In copying documents under such circumstances, care should be taken to avoid using lighting which might cause a reflection on the subject matter. For best reproduction with any device, it is most important that even illumination be obtained. Use indirect lighting rather than window light. Use a light reflector on the side away from the window, because direct sunshine through a window can mirror the defects in the glass. If one of the legs throws a shadow on the subject it can easily be removed and the image area determined with only three legs.

Eventually, the BOOWU (catalog #16,525 — \$24.00) may replace the devices BEOOY, BETAB, and BAZOO. The BOOWU is one more way Leica makes it easier to take the best pictures. Ask your Leica dealer to show you this new device which amateurs, scientists, and professionals will prefer for their close-up work. ♦



Summarit, Summitar, Elmar 50mm lenses may all be used in "BOOWU". The complete device is shown here, comprised of three intermediate extension adapters and four extendable legs.

Below: Leica "BOOWU", Elmar 50mm lens, filter and sunshade.

Into the camera body (in this case the Leica If) ...

... Screw the desired DIN ring, gently ...

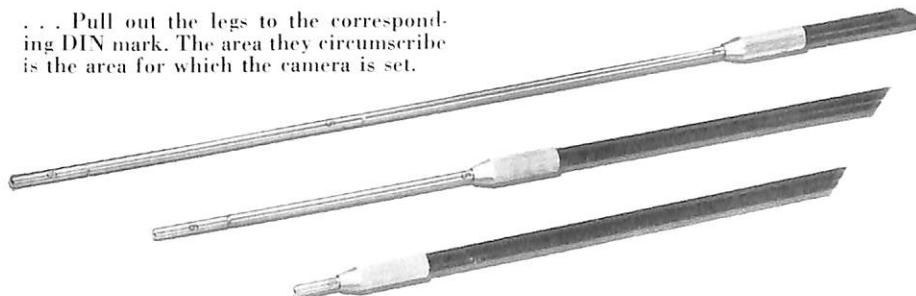
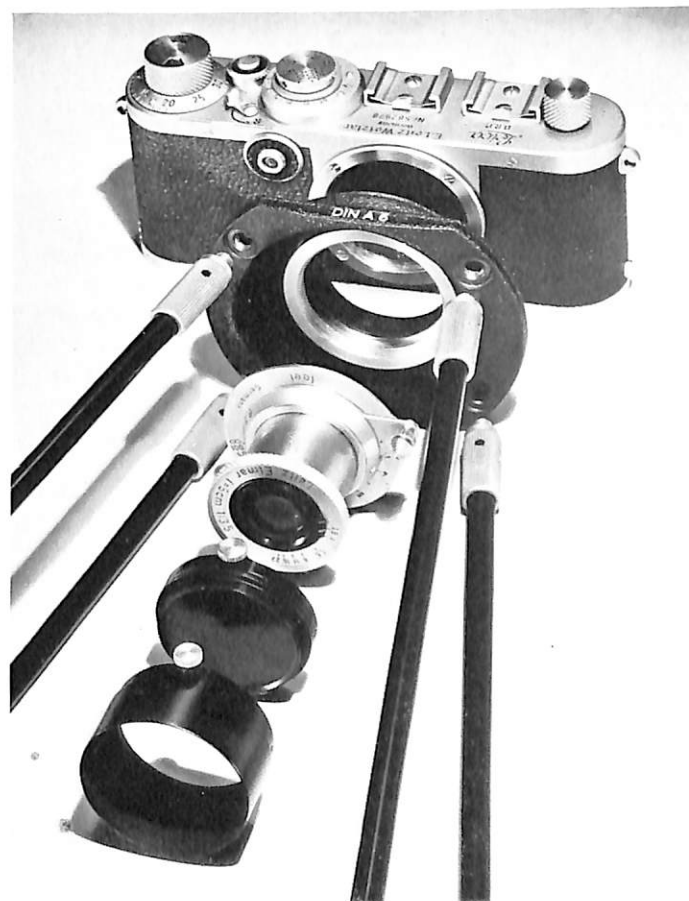
... Using any Leica 50mm lens locked at infinity ...

... Screw in each of four legs ...

... Leica filters of any type may be used ...

... Sunshades may be used on the Elmar and Summarit lenses. Then ...

... Pull out the legs to the corresponding DIN mark. The area they circumscribe is the area for which the camera is set.



FOOLPROOF 35mm. NEGATIVE DEVELOPING

- A REPLY -

By J. Owen Campbell, Norfolk, Virginia

As a Leica franchised dealer and as a Leica enthusiast and exhibitor for over fifteen years, I wish to take issue with Mr. Joseph Foldes' article in the Fall 1952 issue of LEICA PHOTOGRAPHY entitled "Foolproof 35mm. Negative Developing" which recommended developing by inspection.

First of all, I do not believe there is any 35mm. developing practice which can be called foolproof, nor do I believe that any part of photography is foolproof. I do believe that for the simplest method of working in the darkroom the time and temperature method of developing is preferable for the Leica owner.

How do we simplify our method of securing good quality negatives? First, choose a medium speed film, such as Ansco Supreme, Eastman Plus-X, or DuPont Superior No. 2, because of their fine grain structure and wide latitude. Most medium speed films have an emulsion speed rating of A.S.A. 50 Daylight and 32 Tungsten. The manufacturers have placed this speed rating in the approximate center of the latitude scale to compensate for carelessness and shutter variations in non-precision cameras. I feel that with the accurate shutter of the Leica you expose your film at only half the available speed which is, in effect, overexposing. Therefore, I use the speed rating of A.S.A. 125 Daylight and 100 Tungsten, use a Leica-Meter and expose for the light area but develop fully for the shadow.

The present day panchromatic film available for the Leica is capable of registering a low lumen if the proper developer is used to resolve it, such as Ansco Finex-L, Eastman's Microdol, X-33, etc.

Proper processing is now necessary to obtain good negatives. First of all, load your Correx tank carefully, feeding the film on the roll by holding the edges. I prefer the Correx because it is easier to handle, it accepts two rolls of film back-to-back and it is possible to develop evenly with a minimum of agitation. Hand-

dle the film as little as possible and only by the edges.

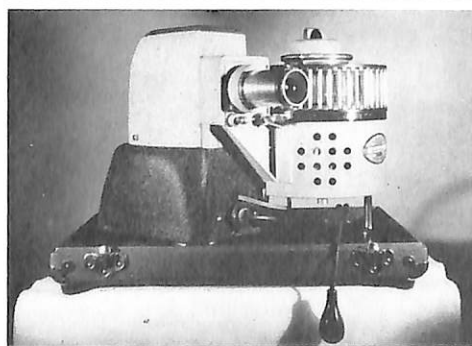
Now to the time and temperature method. Since most developers are recommended for use at 68°F, this temperature should be followed as accurately as possible because all the ingredients of the formula work to their best advantage at this temperature.

Develop fully, as stated in the developer instructions, with a certain amount of agitation. Filter the developer back into its bottle, rinse the negative for one minute in plain water and replace the water with your hardening and fixing bath. This usually takes from five to ten minutes depending on the type of solution you choose. Wash thoroughly.

After washing, soak the film for twenty or thirty seconds in water containing a few drops of wetting agent. Hang the film up, wipe the excess water from the emulsion side with a damp sponge in one even stroke. This may be done two or three times, and then let the film dry. For processing Leica film in the summertime, develop your film at

68°. Follow by a chrome alum hardening bath from four to five minutes at 70°. This should be followed by your fixing solution at a temperature of 72°. Follow by washing for fifteen or twenty minutes, which is sufficient because of the warm water. The advantage of the chrome alum bath, and the gradual raising of temperatures, will give you added protection against reticulation despite the fact that this method means a little extra work.

I have written this article with one thought in mind—to give my fellow Leica owners a method of securing good quality negatives that has held up for the last fifteen years to my personal satisfaction. I do not claim this to be the only method or the best method, but after the many years I have spent in photography there is one thing of which I am certain—I am just as much a Leica fan as I was fifteen years ago, and I attribute this to a belief that I have the finest equipment made, and to the knowledge that after making an exposure I am reasonably sure of getting the kind of negative that meets my requirements. ♦



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LEICA GOES TO A WEDDING

by Walter A. McVey, Jr.

Continued from page 5

never forget that it is sacred. Some photographers go down the aisle ahead of the bride and stand in front of the altar flashing pictures as the bride approaches. Then while the minister is conducting the ceremony, the photographer creeps around the front of the church flashing pictures at will. Personally, I think this is in bad taste and I never take pictures during the actual ceremony. In most churches, you would probably be asked not to do so. Usually, however, I take a picture of the bride going down the aisle and another of the bride and groom as they kiss at the end of the ceremony. Both these pictures are taken from the rear of the church, and, as a matter of courtesy, I ask the minister beforehand whether or not he objects to these shots being made.

All my black-and-white pictures are made on Plus-X film which I buy in bulk and load in Leica cartridges. The saving afforded the photographer in buying film in bulk is so great that a 35mm. fan should do so as a matter of course. Using only one type of film for all pictures, I shoot with confidence under all conditions and I believe I obtain better results than otherwise. I have selected Plus-X film since it offers both speed and fine grain.

Using #5 flashbulbs, I shoot at 1/200th second with a lens setting which is mostly between f/6.3 and f/11. Exposure can be computed easily with one of the handy Leitz flash guides. Of course, exposure is only estimated at best since room conditions vary greatly on any one assignment. Often, I cut exposure by putting my handkerchief over the flash unit. This saves making camera adjustments. The fast shutter speed is advisable because at a big wedding reception the photographer is likely to be jostled about as much as a ball carrier in a football game.

In the darkroom cleanliness pays big dividends. Too many photographers think that a flawless 8x10 print from a 35mm. negative is the exception and not the rule. One of the common objections to the 35mm. camera is that its negative is too small to allow prints without dust specks. This is absurd. The only extra precaution I recommend in developing 35mm. negatives, rather than larger ones, is that all solutions be filtered. This isn't difficult and only requires a few min-



No wedding is complete without tin cans and practical jokers.

utes additional time. Naturally, before placing the negative in the enlarger, dust it with a soft brush.

Printing of wedding pictures is not an easy matter. Rarely will the "straight" print be satisfactory. Print dodging is usually required to balance the light and dark areas resulting from the use of single flash. A great deal of difficulty is encountered when photographing white wedding gowns with flash. These areas must be "burned in" while making the enlargement. Wedding photography will compel the photographer to become an expert at print dodging. I do all my dodging with my hands, incidentally, finding it easier in the long run than with the aid of dodging devices.

I make all wedding enlargements on Opal P, which gives them a desirable warmth. Fully developed in Selectol, this paper yields rich tones and excellent print quality. Negatives are developed in Microdol.

Only once have I had a failure in taking wedding pictures with my Leica. Then I had neglected to watch the rewind knob when winding the film in the camera upon loading. If properly loaded, the rewind knob will turn counter clockwise as the winding knob is rotated. In that instance the film wasn't loaded properly and it didn't move through the camera. Unfortunately, I didn't discover this until I developed the film. It was a lesson well learned.

Wedding photography requires rapid shooting under all sorts of conditions and excellent print quality in the finished product. Failures cannot be tolerated since the event occurs only once. Flash is an absolute necessity and synchronization must be perfect. Compactness, versatility and economy of use are desirable in the camera used. The Leica IIIIf offers all these features in a single unit. ♦

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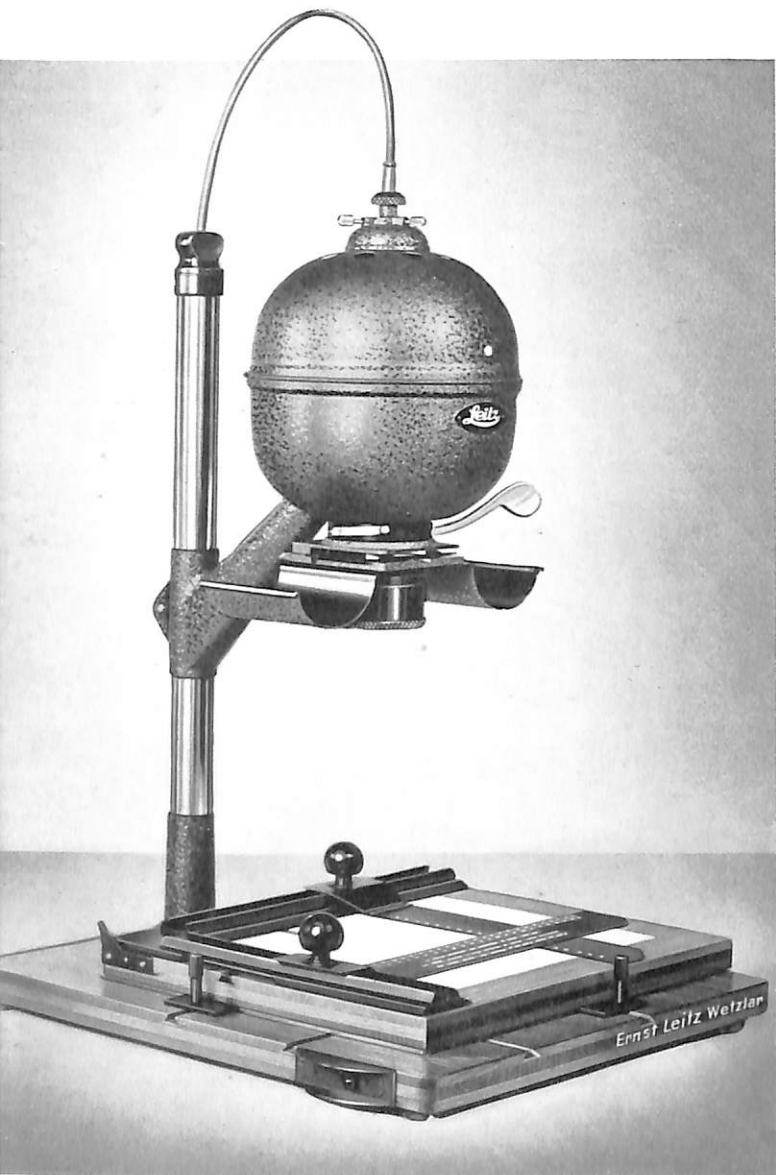
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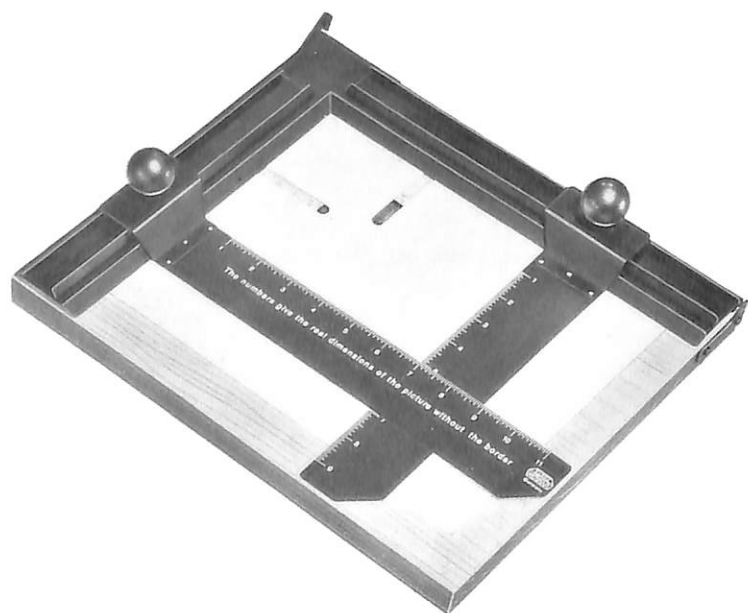
*for the **LEICA** fan*
the new
VALOY
enlarger

It has often been said that the success or failure of a good black-and-white print depends on the equipment used and the technique applied in the dark room. Too often, a carefully exposed and composed photograph is improperly printed. The new VALOY enlarger was designed specifically for users of miniature cameras. It accommodates negatives up to 4x4cm. in size, and the condenser serves as a pressure plate to keep film in a flat plane. Although it is manually operated, it has the same precision optical system and other general features of the more advanced Focomat Ic and IIa enlargers, such as, the 75 watt bulb and diffused illumination.

Because of its efficiency and design it is simpler and easier to operate, as well as being an economical buy at \$81.00.

TECHNICAL DATA

- Cord and plug to connect the enlarging head.
- Large, well ventilated lamp housing with adjustable condenser lens; the upper hemisphere is removable.
- Centering mount for lamp socket; 75 watt opal bulb for direct connection to the mains.
- Lever for raising and lowering the condenser lens; in its lowest position the condenser will hold the negative film perfectly flat.
- Negative carrier film slides for various sizes of miniature negatives, interchangeable with single negative holder and double glass plate.
- Large, knurled helical focusing mount with standard objective changing mount for 50mm. Leica lenses or a special Leitz enlarging lens.
- Orange swivel filter for checking the image direct on the enlarging paper.
- Diaphragm actuating ring with click-stops for 50mm. Elmar Leica lens.
- Film holders to catch film ends.
- Sliding arm, adjustable in height with clamping screw.
- Vertical upright, chromium plated, 20 in. long, 32mm. diameter. A longer upright is available if enlargements above 8.5x are desired.
- Vibrationless connection between upright and baseboard.
- Baseboard 15½ x 17½ in. warp proof.
- Clamping screws for the printing board.
- Hinged paper masking strips, graduated in 1/16 in.
- Protected switch to turn the bulb (75 watts) on and off.
- Adjustable paper stops graduated in 1/16 in.
- Enlarging easel for sizes up to 8x10 in. (or 18x24cm.) adjustable on the baseboard.
- Milled slots as guides for the clamping screws, when changing the position of the printing board.



FPY00 17,585 \$22.50. Enlarging easel, 8x10 inches for all Leitz enlargers.

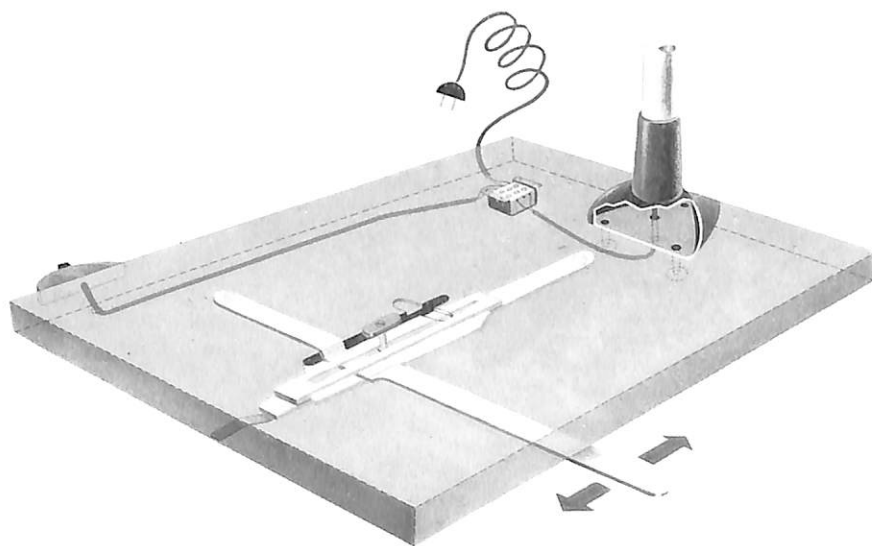
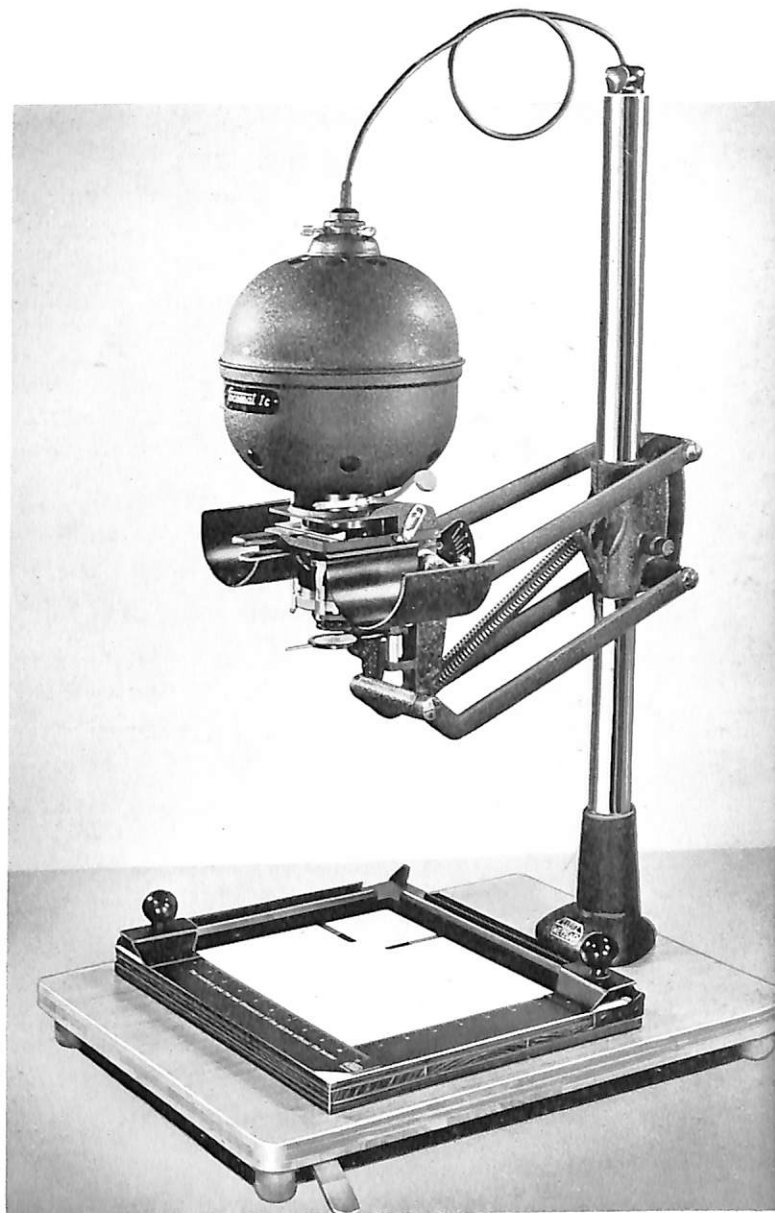
the **FOCOMAT** *enlarger*

The now widely known Focomat Ic enlarger has become one of the most popular 35mm. enlargers ever produced. Its automatic focusing covers a range of magnification from two to ten diameters with just a touch on the instant locking clamp. Greater enlargements are obtained by manual focusing.

A special baseboard clamping arrangement is for either the 8x10 or 16x20 enlarging easel. Either the special 50mm. enlarging lens or the 50mm. Elmar lens for the Leica camera can be used for enlarging purposes. See your Leica dealer soon for a demonstration of these Leica enlargers!

TECHNICAL DATA

- 3 Point adjustment for lamp.
- Lamp housing contains specially designed reflector.
- Lever for raising, lowering and locking condenser.
- Optically ground condenser matched to light source.
- Calibrated scale shows enlarging range; 2 to 10 diameters.
- Finger grip control for raising, lowering and locking head.
- Index stops for focusing mount when using different negative carriers.
- Manual focusing ring (for enlargements above or below auto focal range).
- Orange filter for focusing on sensitized paper.
- Balanced parallelogram arm for rigidity.
- Tilt head, quick release for easy cleaning.
- Precision ground cam accurately controls automatic focus.
- Focusing cam roller for smooth operation.
- Guide rod assures alignment of optical system.
- Film holders to catch film ends.
- Vertical upright, chromium plated, 20 in. long, 32mm.
- Vibrationless connection between upright and baseboard.
- Enlarging easel for sizes up to 8x10 in. (or 18x24cm.) adjustable on the baseboard.
- Adjustable paper stops graduated in 1/16 in. (or millimetres).
- Hinged paper masking strip, graduated in 1/16 in. (or centimetres).
- Baseboard 15 3/4 x 20 1/2 in, warp proof.
- Clamping screws for the printing board.
- Milled slots as guides for the clamping screws, when changing the position of the printing board.
- Protected switch to turn the bulb (75 watts) on and off.



Baseboard locking mechanism and electrical connection points.

The Case of Strobe vs. Flash In Negative Develop- ment

by E. W.

Lowe, A.P.S.A.



Strobe negatives have a tendency to flatness which many photographers combat by overdeveloping, resulting in a coarse grain. However, fine grain is essential in miniature camera negatives, and can easily be obtained even in strobe negatives *without loss of contrast* by using the long scale developer, EDWAL Super 12. With EDWAL Super 12 *no overdevelopment is necessary for strobe negatives*. Length of developing time is reasonable, and grainless enlargements to 8 x 10" and 11 x 14" are regularly obtained from Leica negatives developed with EDWAL Super 12.

For finer grain strobe negatives, EDWAL Super 20 can be used IF its high energy is maintained with the new EDWAL Liquid Super 20 Replenisher. We do not recommend the "low energy" replenishing method for strobe work with EDWAL Super 20, although it works well with Super 12.

Regular flash bulb negatives tend to be very contrasty, with some areas "blocked up" while other areas are too thin to register detail. This condition can be prevented by developing flash negatives in soft working, fine grain EDWAL Minicoll which holds both shadow and high-light details, even with extremely contrasty lighting. Leica negatives will produce 11 x 14" enlargements from coarse grained films and 20 x 30" to 40 x 60" from fine grained (low speed) films. EDWAL Minicoll is unique since it can be converted into a long scale developer merely by developing negatives at higher temperatures of 75° to 85° F, however, the grain is not quite as fine using this method.

The use of these EDWAL developers is described in detail in the 3rd edition of "Modern Developing Methods." If you are not one of the 135,000 photographers who already have a copy, send 25¢ today (stamps or coins) with the model or serial number of your Leica for a copy.

EDWAL

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RINGWOOD, ILLINOIS

USE LEICA LENSES ON YOUR MOVIE CAMERA

by Buddy Sarkissian

Continued from page 17

The 90mm. Elmar performed as beautifully using 16mm. as it does using 35mm. film. Definition was perfect and the neon sign had been brought about 3½ times closer. We were all amazed at the results with the 135mm. Hektor. There was the image 5½ times closer than the original and holding together as well as the original movie lens.

Everyone was convinced and I was forgiven! We were so excited over the result, I almost forgot about the 8mm. film. In one big hurry I set up two 8mm. projectors and loaded the bit taken with the 12½mm. lens in one machine and the rest of the film in the other. "Switch on" — a trip into the fantastic! That's the only word capable of describing what I felt as did the others present. If the sign came forward by leaps and bounds before — now it came closer as if it were jet propelled.

Since that time, I bought the store from my former boss and am happy to say the Leica franchise is one of my most cherished. My customers have been taking full advantage of the cine adapter for using Leica lenses with 16mm. cameras, and some are enjoying the amazing results of their use with 8mm. cameras.

I believe the most important fact to remember is that most Leica owners eventually find themselves with one or more extra lenses for their camera. In some way, they've run into contact with movies. Usually the critical eye of the "Leica-ist" settles down to 16mm. Then, even though he has the world's finest lenses at his disposal, he goes out and starts buying lenses for the movie cameras. All he has to do is know that he can use his Leica lenses for both the Leica and the 16mm. camera and he can plan a more practical approach to his lens purchases.

Through the thick and thin of it all, I've found out one thing — the Leica lenses belong to an unbeatable family! ♦

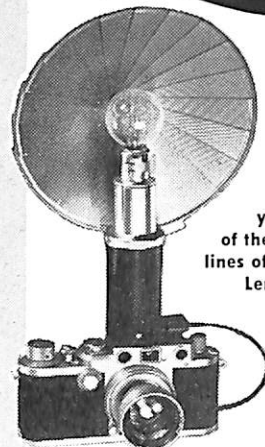
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LEICA ON THE JOB

by Henry Clark

Continued from page 9



"How to do it" articles pay well, especially when profusely illustrated with step-by-step progress shots. Once again Leica assists.

Trade publications use 35mm. pictures because of their high fidelity, but they have not been used often in workshop magazines—especially on extensive projects like this building effort. Therefore, I urge other Leica owners to take similar



"Proof of the pudding." This picture shows how well Linda can get the shot asked for.

pictures and to submit them for publication. In these times of do-it-yourself, it is important that articles be graphically illustrated, in detail, and your Leica is the camera with all the qualities and accessories needed to do the job. ♦

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